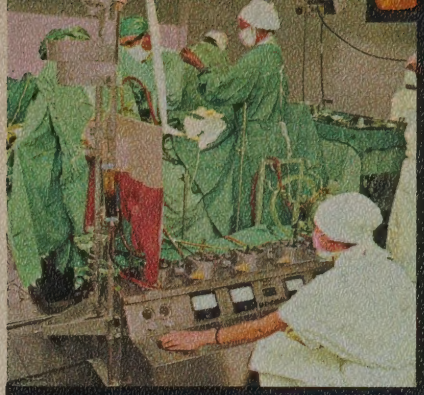
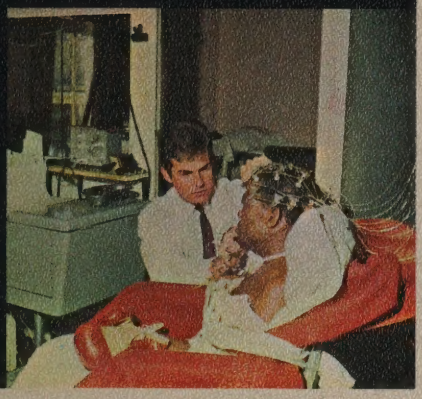
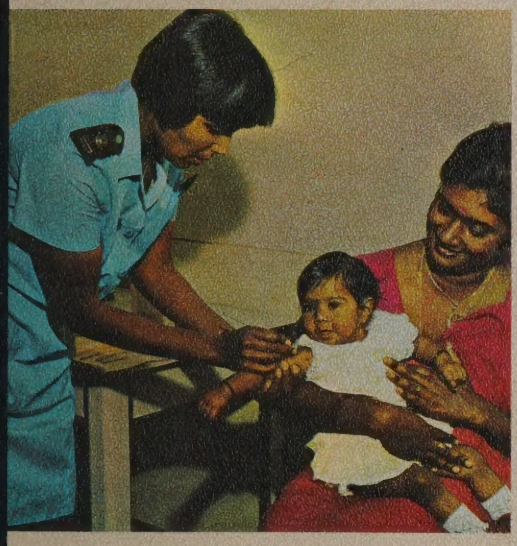
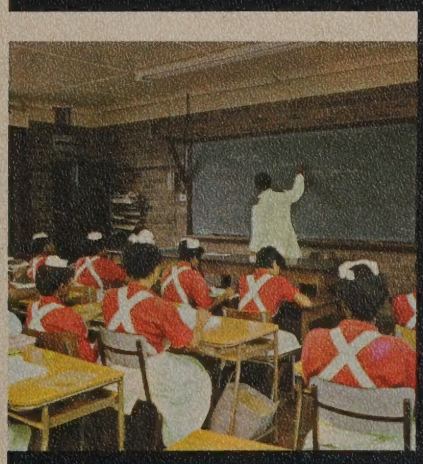




HEALTH & HEALING

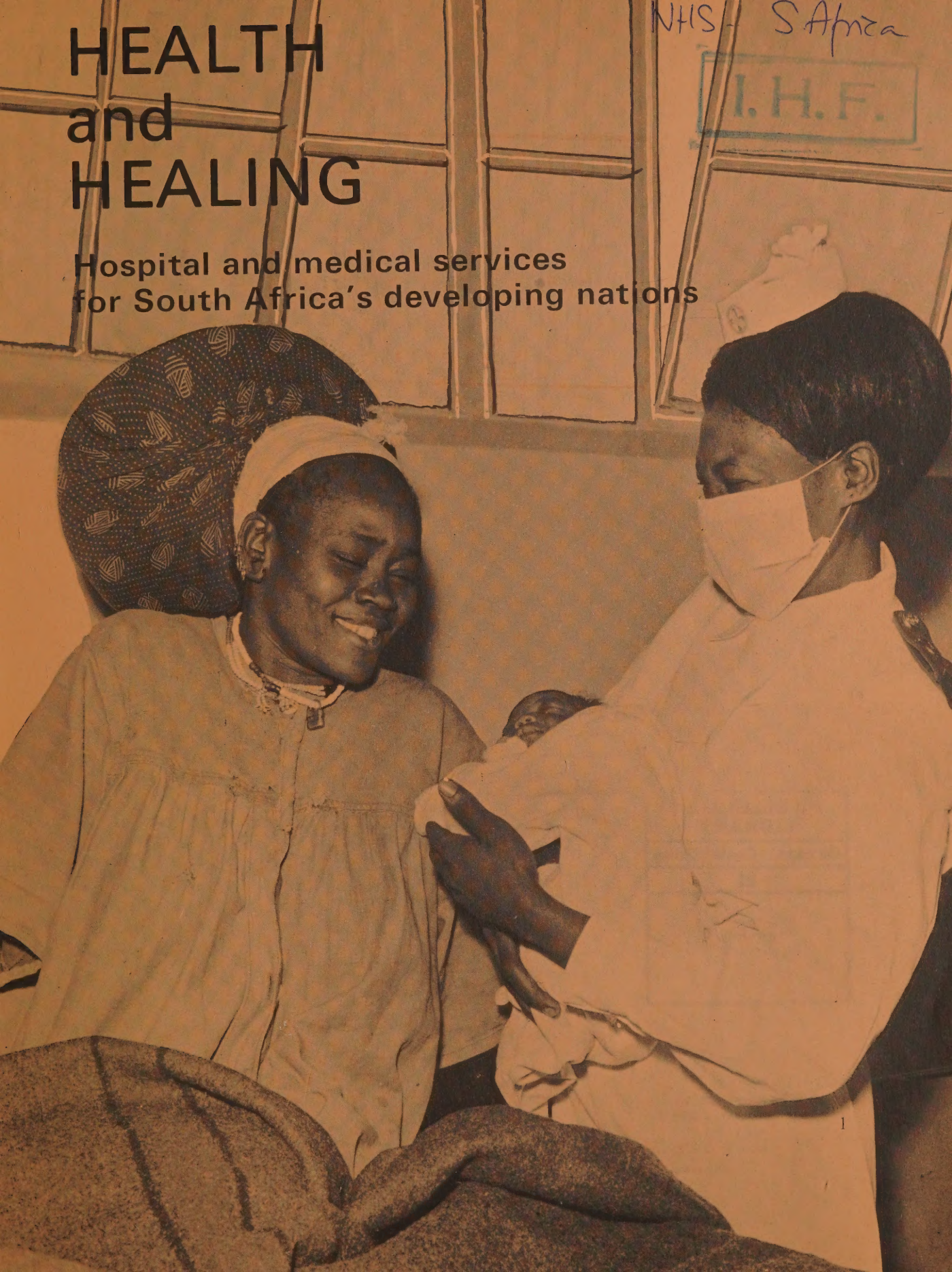




HOSPITAL AND MEDICAL SERVICES FOR SOUTH AFRICA'S DEVELOPING NATIONS

HEALTH and HEALING

Hospital and medical services for South Africa's developing nations



1 Rand (R1) = £0.11.7.
Amer. $ 1.40
Canad. $ 1.51
Aust. $ 1.25
New Z. $ 1.25

CONTENTS

INTRODUCTION

IN the decades since the Second World War South Africa has evolved a comprehensive network of health and hospital services for her Bantu nations and other developing peoples such as the Coloureds and Asians. The fame of this medical work has spread to other parts of Africa and elsewhere, and people have come to realise that in South Africa modern medical treatment is readily available. Moreover, they know too that it costs the patient little, often nothing at all, in spite of the fact that these services are the best that medical science can provide. On this score they have aroused much favourable comment from foreign visitors.

The medical care of the various Bantu nations and the Coloureds and Asians in South Africa and South West Africa is primarily the responsibility of the State, assisted by the Provincial Councils and the South West Africa administration, as well as by a host of semi-Government and private aid and welfare bodies.

In all the major South African cities and towns, hospitals and clinics with doctors and nurses in attendance cater for the medical needs of the Bantu peoples. Every community has its own District Surgeon, a State official whose duty it is to attend to those who cannot afford a private doctor. The patient pays nothing for this service.

Some 336 hospitals, containing 70,000 beds for Non-Whites, are strategically sited throughout the country. Of these, 111 hospitals are in the Bantu homelands and cater exclusively for Bantu. A nominal registration fee is paid on entry; otherwise, practically all Bantu patients receive free attention, including X-ray, surgical, and other specialist treatment.

Out-patient treatment, general nursing, preventive and maternity services (including ante-natal and post-natal services) are available to everybody at hospitals, Government Health Centres, Local Authority poly-clinics and district nursing clinics, even in the remotest areas.

The initial development of hospitals in South Africa took place in the larger cities and towns, and consequently Bantu patients had to be conveyed from their homelands to be hospitalised at urban centres far from their homes and families. However, over the years missionaries settled in the remoter areas densely populated by Bantu, to spread the Gospel. Although their principal aim was the spiritual welfare of the people, they soon came to realise the urgency of providing some kind of medical care for the local inhabitants.

To relieve the situation, small clinics were established at mission stations where patients were treated by the missionaries. Before long it became evident that in-patient treatment would have to be provided, and so these clinics gradually developed into small hospitals. The Government was quick to appreciate the value of these mission hospitals, and subsidised them.

Within the last decade the central Government has accepted full financial responsibility for all capital expenditure of hospitals situated in the Bantu homelands, and has thereby relieved the missions of large financial burdens without trespassing on their religious activities. New hospitals, with dwelling-houses for staff members, are erected at Government expense and handed over as complete units to missions to administer.

An indirect effect of siting hospitals in the Bantu homelands is that centres of development are created where local Bantu can be employed, and where Bantu farmers can sell their produce.

Hospitals in the homelands are planned and run in such a way that patients can feel at home amongst their own people; and so every effort is made to recruit medical, para-medical, nursing and administrative staff from the particular nation concerned. In this way new opportunities have been created for Bantu doctors, nurses, and administrators, not only to earn a good living, but also to contribute towards the development of their own people.

The progress made in providing facilities in these areas is reflected in the following schedule:

HOSPITALS IN BANTU HOMELANDS

Year	Number of Hospitals	No. of Beds available
1952	66	4,131
1962	105	13,673
1967	111	19,000

An extensive hospital building programme for the Bantu homelands is in progress. Twelve new hospitals are at present (1969) under construction or in the planning stage, and will provide an additional 10,000 hospital beds within the next six or seven years. Another six hospitals have been approved in principle and will be on the drawing-boards in the near future. At the same time, existing hospitals are being improved, extended, and provided with the most modern equipment at Government expense.

Some 500 full- and part-time District Surgeons are employed by the Government to provide free medical attention at clinics and in people's homes. The medicines prescribed are also free.

Clinics in the white areas for all population groups are provided by Provincial Administrations and the State, and also by Local Authorities and Private Welfare Organisations with the financial assistance of the State. In the Bantu Homelands an increasing number of such clinics which are provided in conjunction with a district nursing service, are being maintained by Bantu Authorities with the financial assistance of the State.

Malaria

During the last 25 years tremendous progress has been made in the control and eradication of malaria which formerly rendered uninhabitable large fertile sub-tropical areas of the country which now constitute some of the most valuable agricultural land in South Africa. Indeed, such has been the success of malaria control that, during the period 1960-1967, on an average only 300 cases per annum were notified.

Blood slide surveys are carried out periodically in affected areas to trace and treat all parasite carriers; mass chemo-therapy is applied to all inhabitants of malarial areas, and anti-malarial drugs are freely issued for prophylactic use in certain regions. The local population is given intensive health education to encourage self-protection and to facilitate the early detection of malaria cases. During 1967 some 232,834 homes (mainly Bantu) were sprayed with residual insecticides by fully-trained field staff as a further measure to combat the disease.

Bilharzia

Bilharzia is endemic throughout Africa, including parts of South Africa. In the endemic areas it is predominantly the Bantu who are affected by this disease. Traditionally, they live scattered over extensive areas as single families or in small groups, obtaining their water from rivers and natural pools. These sources are usually unprotected, and are thus readily exposed to pollution by those with unhygienic habits. The Bantu population is now being concentrated into larger communities or townships, with hygienic sanitation facilities and safe water supplies, which should go a long way towards the control of bilharzia and its eventual eradication.

In contrast with malaria, no effective prophylactic drug is available which can be issued to the inhabitants of endemic areas. However, bilharzia patients may receive treatment at Government expense from District Surgeons and in hospitals.

Kwashiorkor

Kwashiorkor is still prevalent among the Bantu, and is given special attention by the Government. This manifestation of malnutrition was proclaimed notifiable in South Africa so that a clear picture of its incidence and distribution might be obtained.

Although protein deficiency is recognised as the main factor in the development of this disease, there are many other contributing ones, such as ignorance, traditional taboos and superstition, a high incidence of illegitimacy with consequent neglect of children, absence of family planning, etc. Special attention is being given to these related problems by means of health education.

Skimmed milk powder, which has proved the most suitable and economical product both for the treatment and the prevention of the disease, is subsidised and distributed extensively.

The following figures indicate that since the inauguration of these measures the incidence of kwashiorkor appears to have declined, despite the growing population and severe drought conditions experienced in the country during the last few years:

KWASHIORKOR NOTIFICATIONS FOR BANTU

1963 —	15,477
1966 —	10,101
1967 —	9,735

Tuberculosis

It is Government policy that all patients suffering from pulmonary tuberculosis be admitted to hospital at public expense for an initial period of at least six months, after which clinically suitable patients, who are no longer infectious, are discharged to complete their treatment extra-institutionally.

The necessary facilities for such extra-institutional treatment are provided by the State and by Local Authorities with financial assistance by the State. Such institutional and extra-institutional treatment facilities are provided entirely free, including free specialist consultations, surgical procedures, X-ray examinations and the regular supply of the most effective modern drugs. When bread-winners have to undergo treatment, needy families are taken care of by public welfare organisations, and their income is often supplemented by a Government pension.

During 1967 the following beds were available for pulmonary tuberculosis cases:

	Whites	Coloureds	Asians	Bantu	Total
No. of beds	447	2,476	302	22,078	25,303
Beds per 1,000 of population	0·01	1·37	0·55	1·77	1·38

Poliomyelitis

In 1961 the Government launched a national immunisation campaign against poliomyelitis, and its impetus has been maintained by the free issue of vaccine to all medical practitioners and by the provision of free immunisation facilities at all clinics.

The success of these measures is reflected by relative morbidity statistics:

To meet the special needs of the Bantu in their homelands, and to bring hospital accommodation nearer to their families, approximately 1,000 additional beds are in the process of being established in these areas.

POLIO CASES NOTIFIED

	Whites	Coloureds	Asians	Bantu	Total
1960	360	180	22	492	1,054
1967	3	7	0	57	67

Leprosy

Treatment and accommodation of all leprosy patients until they are no longer infectious is a free public health service. With the advent of modern drugs, the average period of institutional treatment has been reduced, and the rate of discharge now exceeds the number of admissions.

Numbers of patients, although ready for discharge, often refuse to leave the institutions because they fear that they will not be accepted by their communities because of disfigurement, or because they have no relatives or friends who will do so. These unfortunates are retained indefinitely on purely humanitarian grounds, and the Government is now erecting a special home where many of them will be cared for.

Chronically Ill

By the end of 1968 seven homes for chronically ill Bantu had been established in South Africa, three of them in Bantu homelands. These provide accommodation for nearly 500 patients who are confined to bed, while a further 2,000 Bantu are accommodated in these homes, all expenses being met by the central South African Government. Eventually the homes will be supervised and fully controlled by the Bantu authorities of the homelands concerned.

Trachoma

More than R10-million is spent annually on antibiotic eye ointments used to fight trachoma among South Africa's Bantu peoples. The three major eye diseases among the Bantu – trachoma, glaucoma, and cataracts – are now well under control.

Health Education

An active programme of health education, covering all fields of public health, is being pursued unremittingly by the Government. Bantu health educators are specially trained to minister to the specific health needs of their people and, in particular, to their requirements in the Bantu homelands. A two-year full-time course for this purpose has been instituted at a recognised Bantu college. It covers elementary basic medical science, epidemiology and prevention of disease, water, personal and environmental hygiene, etc. Government bursaries are available to all students to cover college fees and hostel accommodation, and post-graduate employment is guaranteed.

Persuading the Bantu peoples of South Africa to accept modern medicine has been a big task, involving a painstaking campaign which has demanded great patience and ingenuity. It has not been merely a question of bringing the medicines, the vaccines, or the

mobile units to the Bantu people or, indeed, of bringing the Bantu peoples to the doctors, the nurses, and the hospitals. The real struggle has been against ignorance, superstition, mistrust, fear, and witch-doctors. Gradually, however, the Bantu have been weaned away from their centuries-old superstitions and belief in witch-doctors; and it can be stated that in South Africa today the battle is all but won.

The table given below of inhabitants per physician in Africa speaks for itself.

INHABITANTS PER PHYSICIAN

(Source: "Statistical Year-book of the United Nations, 1965")

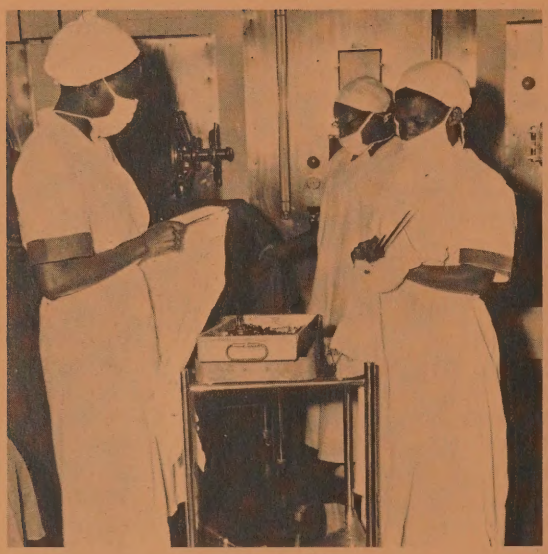
Country	Year	Inhabitants per Physician
South Africa	1963	1,900
Lesotho (Basutoland)	1963	21,000
Botswana (Bechuanaland)	1963	14,000
Burundi	1963	68,000
Cameroon	1962	30,000
Central African Republic	1961	33,000
Chad	1962	62,000
Congo (Brazzaville)	1964	15,000
Congo Dem. Rep.	1961	30,000
Dahomey	1962	21,000
Ethiopia	1961	96,000
Gabon	1964	5.700
Gambia	1962	16,000
Ghana	1962	12,000
Guinea	1961	21,000
Liberia	1964	11,000
Madagascar (Malagasy)	1962	9,700
Malawi	1962	35,000
Mali	1964	40,000
Nigeria	1963	34,000
Rwanda	1964	144,000
Senegal	1963	20,000
Somalia	1960	30,000
Tanzania (Tanganyika)	1963	21,000
Togo	1962	34,000
Upper Volta	1964	63,000
Zambia	1963	8,900

Cross-section of hospitals

The following pages feature a representative cross-section of hospitals, and serve to illustrate the wide range of medical services available to South Africa's Non-White peoples, ranging from the all-embracing facilities of Johannesburg's famous Baragwanath Hospital to those of a typical State hospital in Ovamboland, South West Africa.

BARAGWANATH

Place of Healing



BARAGWANATH Hospital, situated 7 miles south-west of Johannesburg, South Africa's largest and most populous city, is dedicated to the wellbeing of South Africa's Bantu peoples. It is a monument to medical progress and an important pillar of harmony and understanding between the various nations living in South Africa.

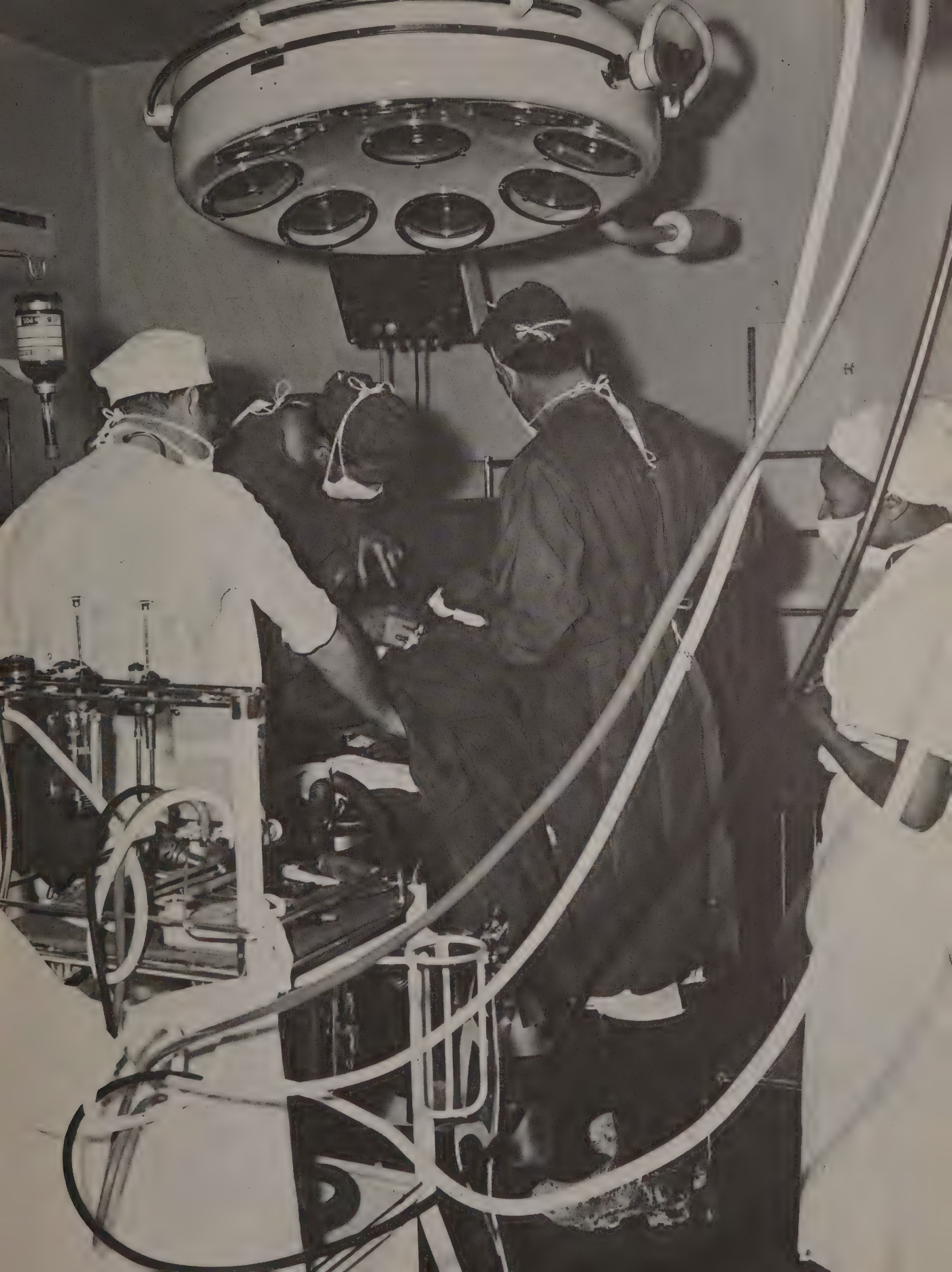
The name of this hospital, one of the largest in Africa, is not an indigenous South African name, as it is often thought to be, but is a not uncommon English or, to be more exact, Cornish one. It originates from the fact that the hospital stands on ground which was formerly a farm owned by the father of Orlando Baragwanath, prospector and discoverer of the rich copper deposits in the former Northern Rhodesia, now Zambia.

Baragwanath has 2,217 beds, and 12 of the most modern operating theatres in South Africa. Bantu patients are attended to by a corps of 256 doctors, of whom 27 are Bantu, assisted by a further 41 part-time medical officers. Nearly one-third of the doctors are specialists. There are 1,488 Bantu nurses, 41 White nurses, and an additional 1,317 non-nursing Bantu personnel. Some 1,000 Bantu nurses receive training in every 3-year cycle at Baragwanath. White para-medical, clerical, and general staff number 170. The current total staff in the Baragwanath complex is 3,313.

The following statistics give a picture of the work done and of the excellent team spirit which makes it possible: about 80,000 Bantu in-patients are treated annually; nearly 2,000 operations are performed every month; on an average 2,000 out-patients are treated every day; more than 10,000 meals are served every 24 hours.

The team spirit of Baragwanath's medical, nursing, and administrative personnel makes it possible to render a service to the Bantu peoples of Johannesburg, as well as a "specialist" service to all Bantu who dwell in the huge industrial and urban conurbation of the Southern Transvaal.

Skilled Bantu operating theatre sisters and nurses assist at an operation being performed at the hospital.



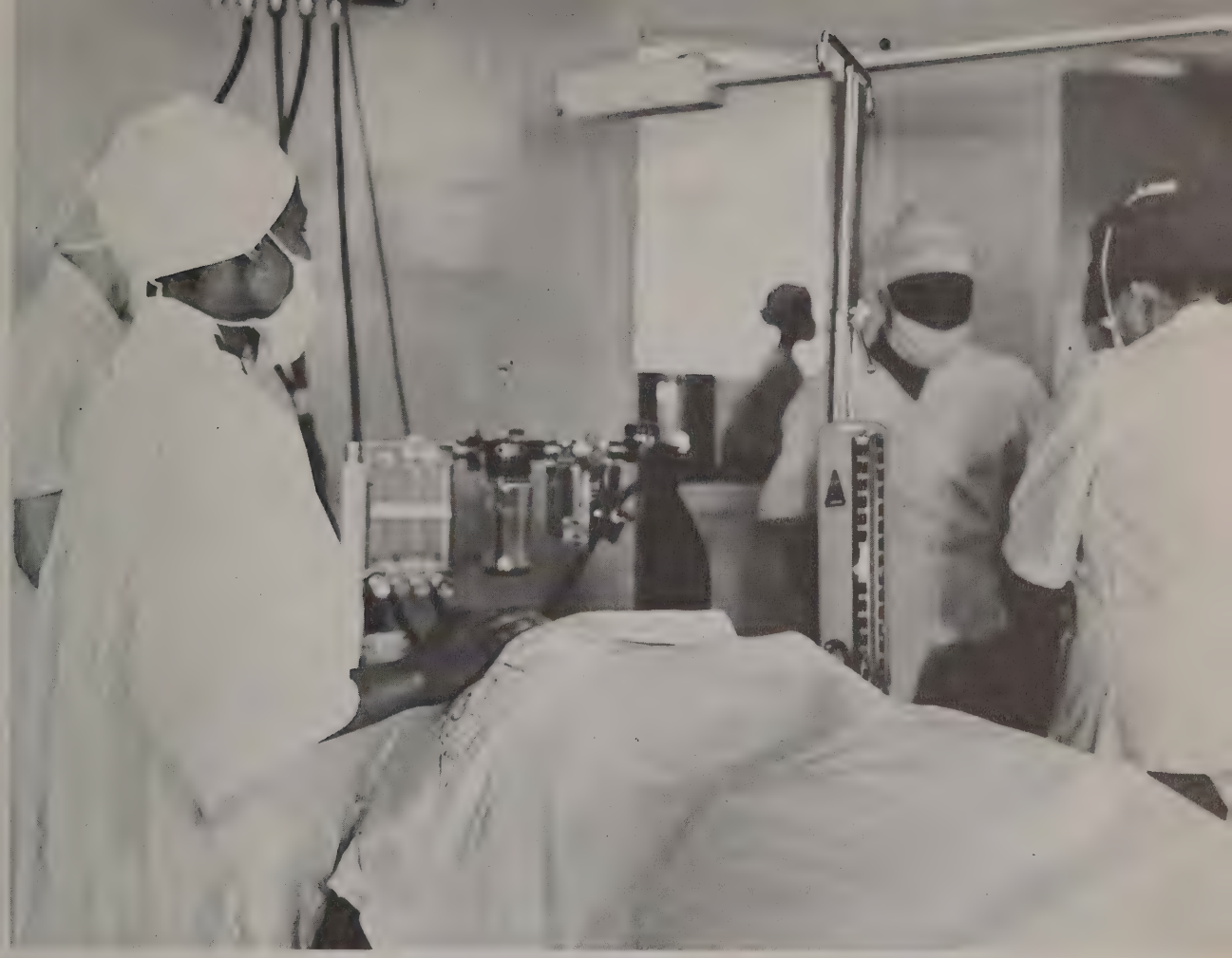
Dr Claude S. Beck, an eminent American medical authority, and professor emeritus of medicine of Cleveland University, Ohio, said after a visit to South Africa: "Nowhere in the world have I seen a more devoted medical staff than that at Baragwanath Hospital in Johannesburg".

The annual running costs of Baragwanath Hospital are of the order of R5½-million. All expenses are borne by the Transvaal Provincial Administration. Patients are charged a single fee only, no matter whether treatment involves one attendance or whether the patient remains in hospital for a year. Dr. Claude Beck referred to the charge as "the infinitesimal fee of 50 cents". It covers all and every type of medical treatment and care.

All over its 133 acres and up and down its long corridors, something worthwhile to the cause of humanity is always going on at Baragwanath. In the past 20 years the hospital has produced a mass of new medical knowledge valuable to man the world over, enriching the literature of the whole medical profession.

Bantu student nurses undergoing instruction in human anatomy.

A young Zulu mother shortly after delivery of her child at the Meadowlands Polyclinic. The characteristic headdress of stiffened clay is covered for protection, and is a permanent feature of wear.



A patient being prepared for anaesthesia.

A group of nurses partaking of a hurried luncheon.

A group of student nurses at the entrance to the College of Nursing at Baragwanath Hospital.

Baragwanath is a teaching hospital, and many newly-qualified doctors serve their year of internship there. No training could be more instructive or illuminating. The daily out-patient roll presents the newly-fledged doctor with every variety of human ailment he may expect to meet in a long career of medical practice. Small wonder then that Baragwanath's panel of consultants is held in such high esteem both in South Africa and beyond its borders.

Soweto, a complex of Bantu townships south-west of Johannesburg, is literally on Baragwanath's doorstep. The half-million population of Soweto looks to Baragwanath for its medical care, confident that Baragwanath will never fail it.

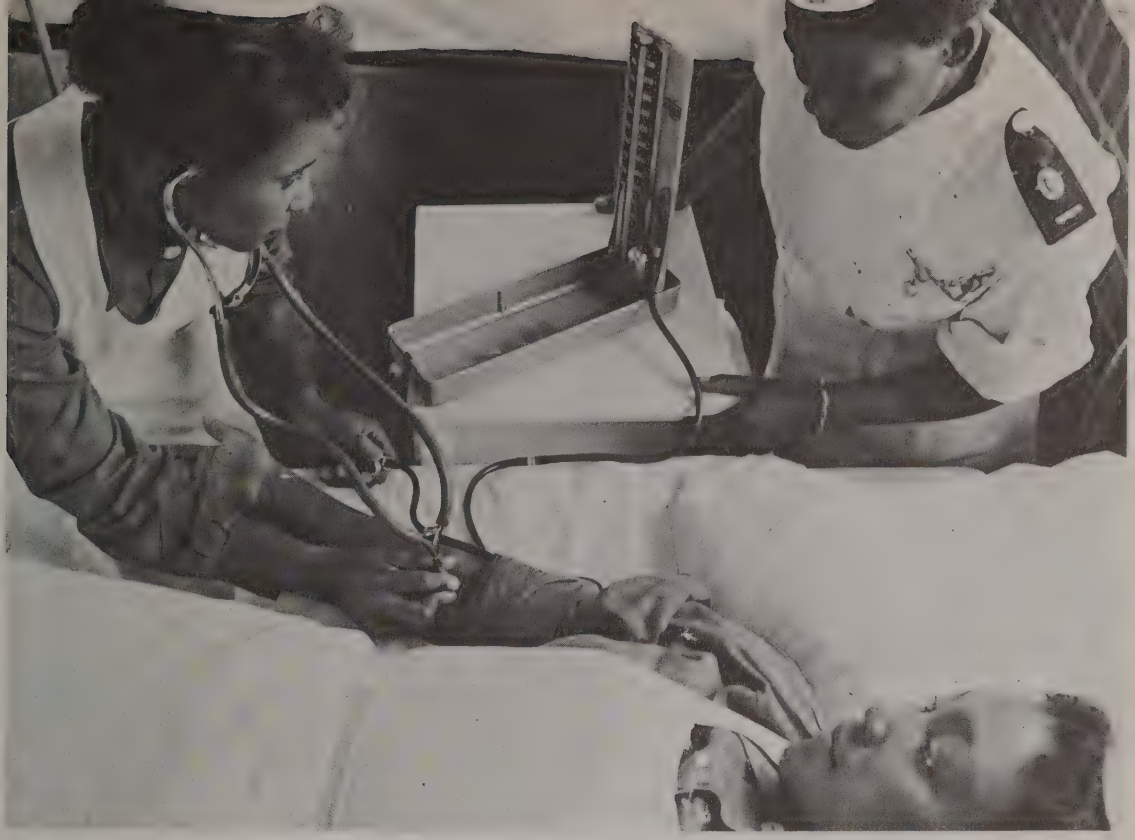
The training of Bantu nurses plays an important part in the life of the hospital. About 300 nurses are always in residence at the College of Nursing. Thousands of applications for training are received annually from all parts of the country. The system of selection is rigorous, for it is not enough that the applicant meets the required minimum academic standard. She must also have the necessary intelligence and the health to profit by the training. Furthermore, she must have the right character to ensure success – not only for herself as an individual, but for the hospital and the patients she will serve.

The trainees come from every part of Southern Africa, but the majority by far are from South Africa and are representative of every Bantu nation. All the student nurses are resident at Baragwanath.

At prescribed stages of the 3½-year training course, the students must undertake both written and practical examinations. They pass through every section of the hospital before writing the final examination of the South African Nursing Council which lays down the standards for qualification. Training syllabuses are the same as for White South African nurses.

The newly-qualified staff nurse takes her place in the wards, and begins her progress through the various sections, which leads in the course of time to the post of ward sister or matron.

Baragwanath has shown that the Bantu nurse is

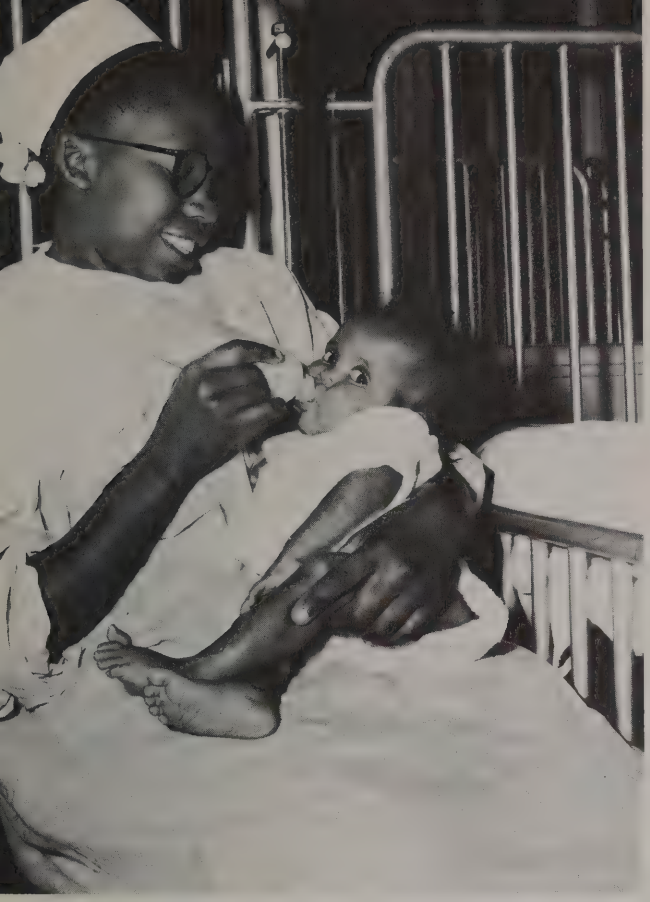


A student nurse learning how to take blood pressure under the watchful eye of a staff nurse.

Student nurses in the library of the College of Nursing.

A study in concentration.

Bantu patients waiting for admission to Meadowlands Polyclinic, one of three such clinics in Soweto, the huge Bantu township near Johannesburg. Between 300-400 patients are seen daily by the doctors of this clinic.



capable and willing to undertake responsibility for looking after her own people. She is keenly aware of the needs of the patient, and she understands the often unspoken but implied fears and anxieties of the Bantu patient. The patient's culture is *her* culture, and she builds a bridge of understanding between patient and doctor.

The highly specialised nature of the health services offered by Baragwanath allows of the post-graduate training of Bantu nurses. There are courses in operating theatre technique, paediatrics, ophthalmic and orthopaedic nursing. In addition, about 200 student-midwives are constantly under instruction at Baragwanath.

Results as good as any, and superior to those in many other divisions of medicine, have been achieved

Time for a feed; the attention accorded all infants is exemplified in this study.

An expectant mother is given a routine, regular weight check.

A Bantu house doctor interviews a patient. A staff nurse looks on.

A nursing sister takes the blood pressure of a young expectant mother.

Nurses of the District Medical Services being "briefed" by the Matron of Meadowlands Polyclinic, prior to setting out by ambulance on their daily calls.

An expectant mother being returned to her home by hospital transport after a visit to Meadowlands Polyclinic.

in the paediatrics section of the hospital. There are 310 beds in the paediatric unit, with accommodation for 80 mothers who breast-feed their babies and are accommodated in quarters adjacent to the paediatric wards. They are fed, clothed, and housed entirely free of charge to themselves.

Between 100-120 beds are available for children up to the age of ten requiring surgery. The out-patient attendance in the paediatrics section alone is of the order of 100,000 a year.

The out-patient section is equipped with a re-hydration unit in which dehydrated children suffering from diarrhoeal disturbances are given emergency intravenous therapy. As many as 4,000 are treated annually in this unit without admission to the hospital proper.

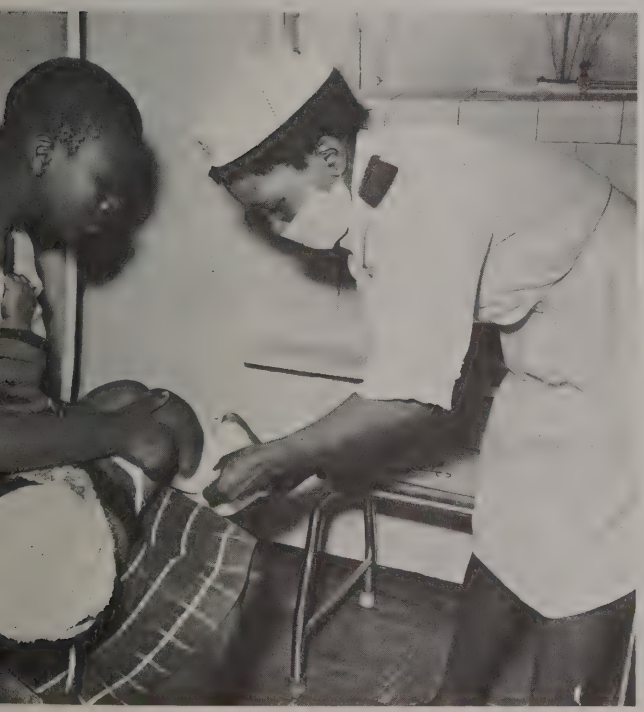
Every year between 3,500-4,000 general paediatrical cases are admitted to the wards of the unit. In addition, there are approximately 18,000-19,000 maternal admissions in the obstetrical department. Under-weight babies are cared for in a special premature unit which caters for 80 such babies at a time. About 1,200 babies are treated in this unit annually.

Baragwanath runs numerous special clinics for children suffering from heat conditions, congenital or acquired neurological disturbances, kidney and

A Bantu mother goes home with her new-born child from Baragwanath Hospital. After her return home, the mother and child are visited daily for eight days by nurses of the District Medical Service.

A medical orderly at the Meadowlands Polyclinic, dressing and stitching a severe wrist wound suffered by a prominent Bantu businessman.

A young Bantu mother with her child which is being examined by a staff nurse.



liver conditions; and there is also a haematological clinic. Nutritional disturbances form the main proportion of the work of the Bantu children's section.

Baragwanath sees numerous unusual abnormalities associated with chromosomal disorders, as well as those common in the rest of the world.

Less than twenty years ago it was an uphill battle to get Bantu mothers to bring their infants to hospital at all. Today, they not only flock to all the hospitals but, yearly, hundreds of Bantu mothers simply abandon their offspring in the hospital wards, walk away, and are often never seen again! A special Social Welfare unit attached to Baragwanath Hospital was called into being specifically to deal with such infants.

Baragwanath controls two decentralised clinics at which about 1,000 patients are attended to daily. Children under the age of 9 years are treated at the Children's Clinic. During South Africa's summer months (October to March), many children suffering from gastro-enteritis are admitted. During their stay they are treated with intravenous drips, and their mothers are encouraged to be in constant attendance. Simultaneously, the mothers are instructed in proper methods of hygiene and the correct feeding of their babies.

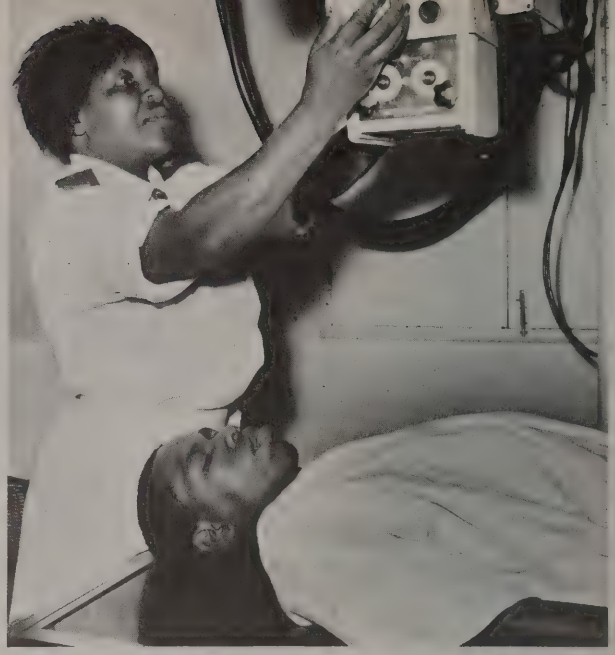
In the field of rehabilitation of Bantu paraplegics Baragwanath has done much sterling work.

It can take from a few months to several years to rehabilitate a paraplegic. Many different types of cases are encountered at Baragwanath: paraplegics, quadriplegics, victims of such diseases as poliomyelitis, transverse myelitis, muscular dystrophy, disseminated sclerosis, cerebral palsy–in fact all types of cases exhibiting impairment of function of the spinal cord.

Baragwanath's paraplegic unit was the first of its kind sponsored for Bantu by the South African Government.

There has been a dramatic change in the type of head and spinal injury incurred by the Bantu. The growth of the South African economy, bringing about a general improvement in Bantu living conditions, has enabled more and more Bantu to buy motor-cars. This has, unfortunately, been followed by an increase in motor vehicle accidents involving Bantu and causing injuries to the head and spine.

The principal injury encountered today is the "whiplash" type caused by the head being flung back violently on vehicle impact. Today's victim is liable to be paralysed in all four limbs, instead of in only two, as heretofore. Ten years ago, 5 per cent of cases admitted were quadriplegic (with all four limbs out of commission), and four out of five soon died as a



A male patient being X-rayed by a nursing sister.

All prescriptions dispensed at Baragwanath are made-up by trainee Bantu chemists under the supervision, at this stage, of a qualified White chemist.

Hundreds of X-ray plates are processed daily.

result of respiratory inadequacy. Today, 15 per cent of admissions are quadriplegic, but 14 out of 15 cases survive because of the introduction of respiratory units into South African hospitals for the Bantu. The result is that, although only 15 per cent of admissions are quadriplegics, these patients are occupying more than 58 per cent of the total available hospital beds, and are costing the taxpayer many thousands of rands more per patient than hitherto.

To enable the paraplegic to earn a living, he is taught one of several home industries at Baragwanath as soon as his medical condition and improvement in health warrants it. Among the arts and crafts in which instruction is given are tailoring, leatherwork, carpentry, machine knitting, sewing, and modern mass production techniques, such as the conveyor-belt system of assembly (paraplegics have proved themselves especially suited to the semi-skilled and skilled

Wheelbound paraplegics enjoying a game of table-tennis under the watchful eye of a physiotherapist.

assembly of radio transistors and similar electronics goods).

Baragwanath's general surgical department caters for every known specialised surgical technique, including open heart surgery. The full range of neurological surgery is impressive by any standards. Daily, dozens of delicate eye operations are performed, as are ear, nose, and throat operations, and operations for urological complaints, and in the field of paediatrics. Baragwanath is now preparing intensive nursing care units to deal with organ transplants, principally kidney and liver transplants, but a heart transplant is not beyond the bounds of possibility. In a 5-day week, as many as 100 operations are performed daily, sometimes even more.

Yearly, thousands of patients from outside the borders of South Africa are brought to Baragwanath. Payment for their treatment is guaranteed by the government of the country from which the patient hails. At all hospitals in the Republic there are interpreters in every one of South Africa's nine basic Bantu languages. Many of them also speak several languages from beyond the borders of South Africa.

At Baragwanath the Bantu peoples of South Africa have learned to accept Western medicine and treatment and to have full confidence in it. It has meant an uphill struggle over many years to achieve this trust, for the power of the native witch-doctor dies hard.

The principle of Bantu self-help is applied at Baragwanath, as elsewhere throughout South Africa, the object being to place the Bantu solidly on their own feet by training their own doctors, nurses, and other medical personnel. "Bara", as it is affectionately known to staff, former patients, doctors at large, and especially to the half-million Bantu souls who live a stone's throw from its front gates, is an institution of mercy of which South Africa can justly be proud.

A paraplegic buffs a boot which he has made in its entirety as part of a programme designed to restore him to useful self-employment.

A paraplegic patient demonstrates his skill on the weaving loom. It is remarkable how quickly such skills are acquired by patients determined to fill a useful niche in life and to overcome their reduced physical capacity.

Nothing deters these paraplegic patients from enjoying a game of chairborne netball.

EDENDALE
HOSPITAL

EDENDALE Hospital is the focus of hospital services for the Non-White peoples of the Natal Midlands. Situated on the outskirts of Pietermaritzburg, Natal's capital city, Edendale is renowned in this quarter of the Province. It is a tangible earnest of what has been done, and what is being done, by the Department of Hospital Services of the Natal Provincial Administration to provide a full range of general and specialist medical services for the Non-White population of most of inland Natal.

Since the end of the Second World War, but more particularly since 1948, a tremendous medical expansion programme in South Africa's hospital facilities has brought the country to the forefront in the treatment of disease.

Established and opened in 1954, and added to almost yearly since, Edendale is still some small distance short of its planned size. But although it is such a comparatively "young" hospital—only 14 years old—it has made a vital contribution to health services for the Bantu.

The hospital stands on an eminence in the valley of the Umsinduzi River, about 5 miles from Pietermaritzburg. The main hospital building is a modern, eight-storey structure, completed in 1954, to which eight wards were added in 1966. Together, these two buildings provide a total of 1,099 general beds and 355 maternity beds, 94 per cent of which are continuously occupied by Bantu, and the remainder by Asians.

The average daily bed state for January, 1968, to June 30, 1968, was 1,237 patients. The number of admissions in 1967 was 37,897. There were 6,548 deliveries in the maternity section in that year, and a grand total of 311,310 out-patient attendances.

Also during 1967, there were 48,271 X-ray examinations, and no fewer than 13,189 operations (major and minor) were performed, an average of 1,099 a month, i.e. 36 daily. The staff employed numbers 1,744.

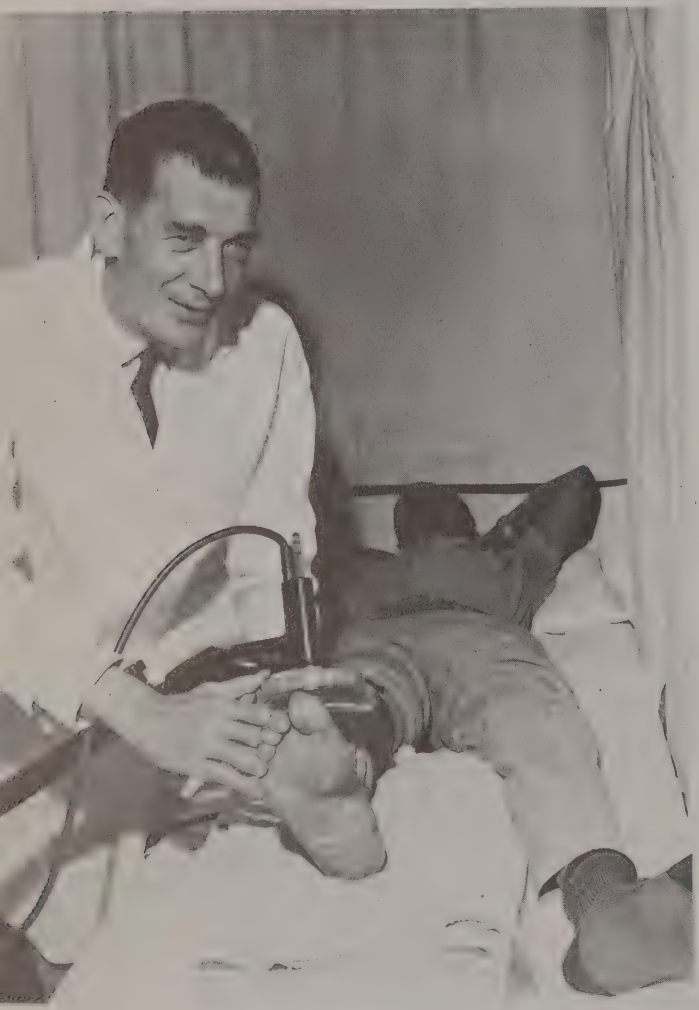
Edendale also administers a subsidiary Clinic in the Borough of Pietermaritzburg, which acts as a "feeder" to the main hospital.

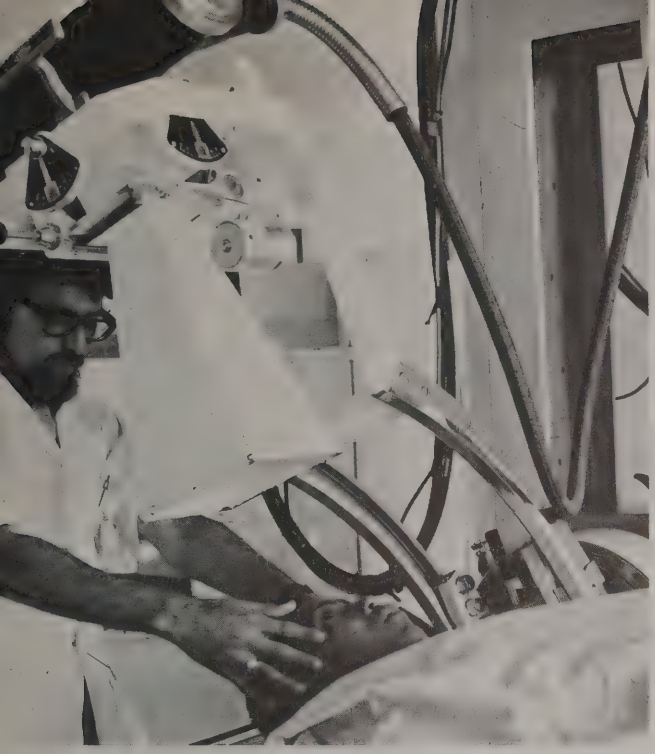
Edendale offers full-time specialist services in medicine, surgery, orthopaedics, paediatrics, obstetrics and gynaecology, radiology and, in addition,

Edendale Hospital, on the outskirts of Pietermaritzburg, caters for the large Non-White population groups of the Natal Midlands. This is the entrance to the main building.

Time for that important beauty sleep under the care of a nursing sister.

A blind physiotherapist, who is renowned for his skill and superl sense of touch, treats the injured leg of a Bantu patient.





An Indian radiologist X-raying a youthful patient's head.

there are clinics conducted by visiting specialists in ophthalmology, otorhinolaryngology, psychiatry, and dermatology. There is also a pathology laboratory in the charge of a specialist pathologist.

Severe cases of burns are admitted to the special burns unit.

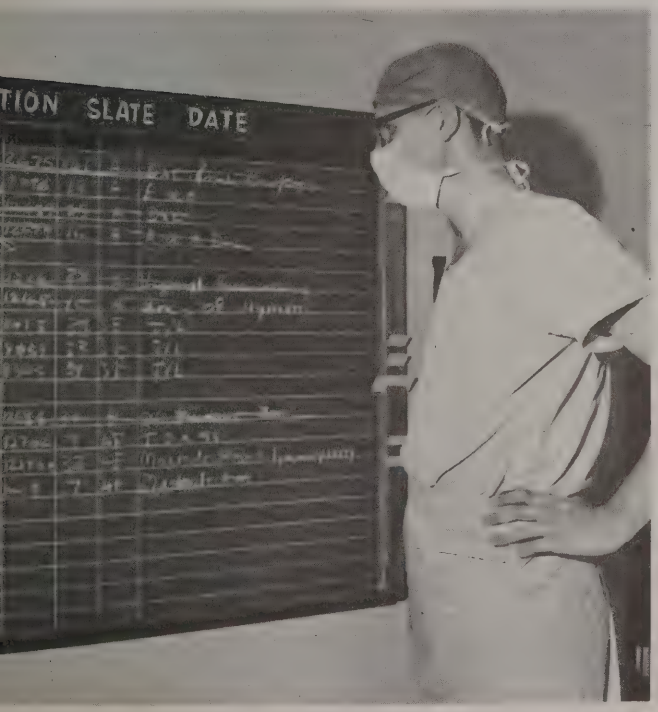
The intensive care unit was one of the first to be established in South Africa.

Edendale also pioneered the establishment of a modern, efficiently-run central sterile supply department.

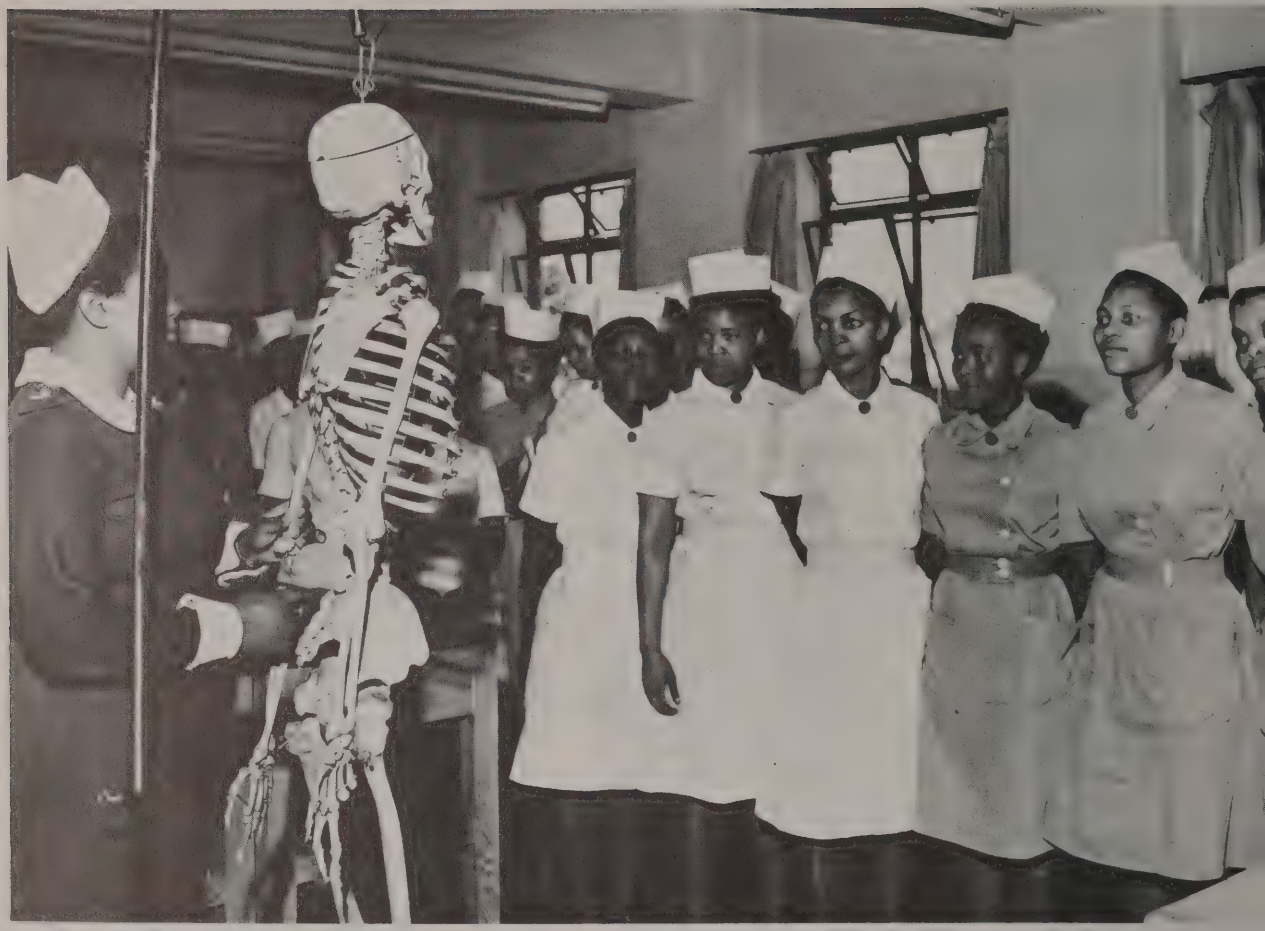
The total establishment of doctors is 114. 19 specialist doctors and 65 medical officers are attached to Edendale. In addition, 21 visiting and part-time medical staff are on call.

The hospital is an important training school for Non-White nurses. The premises housing the Training College are among the most striking and modern of their kind in the country. At present, 338 students are undergoing training as general nurses, and there are 71 student midwives, all of whom have already trained as general nurses at Edendale itself. Post-basic courses in operating theatre technique and ward administration are offered.

A doctor from the Netherlands working at Edendale on a South Africa-Netherlands exchange scheme, studies the daily operations slate. Between 30-40 operations are performed every day.



A stretcher case being removed gently from the ambulance.



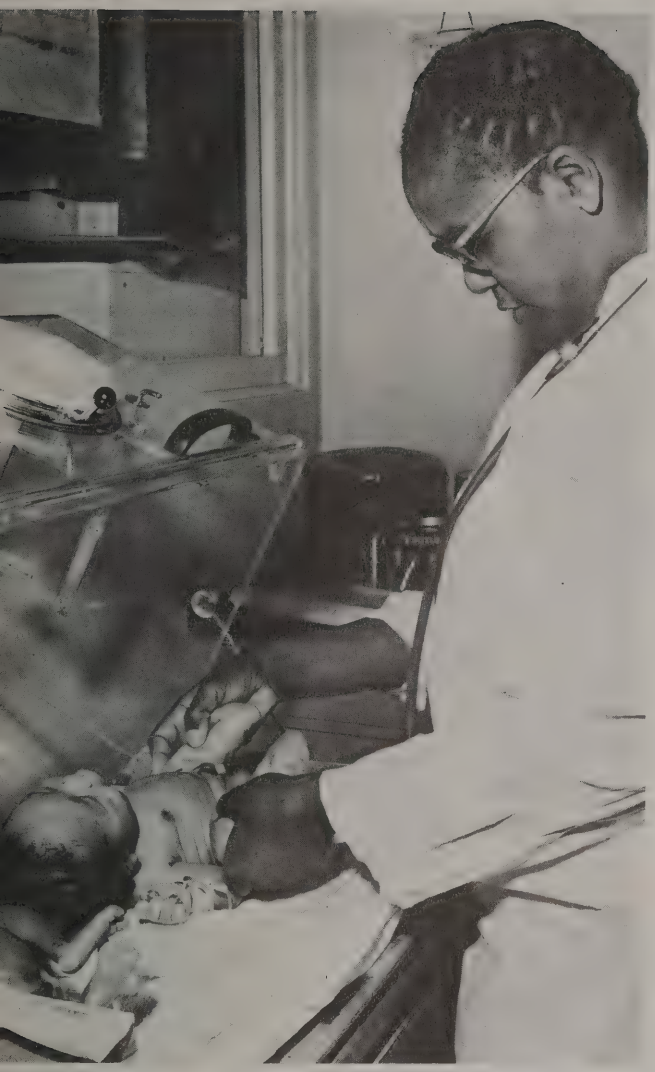
Trainee nurses listen intently to a lesson in anatomy.

The total active nursing complement of Edendale is 911 (trained, untrained, and students).

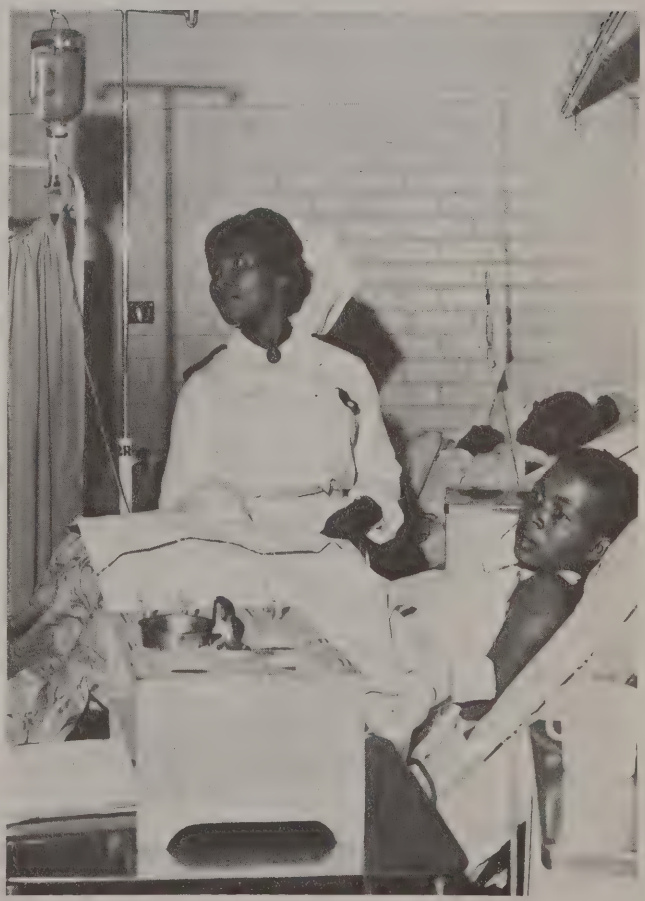
The hospital is responsible for the Pietermaritzburg out-of-Borough Ambulance Service. All ambulances are fitted with two-way radio communication systems, which has considerably reduced the time spent in reaching the patient and/or caller, thereby ensuring prompter attention, especially in maternity cases.

Extensive building operations are under way. An out-patient extension will double the size of the present out-patient department, and a new stores department will treble the size of the existing stores facilities. Extensions to the operating theatre Complex, the X-ray department, and the laboratories are expected to be taken in hand in the near future.

The current hospital research programme, which covers a wide field of planning, and entails the most thorough investigation into users' requirements, is sponsored by the four Provinces of the country. Like all Natal hospitals, Edendale is co-operating actively. By observation and assessment of the medical and nursing procedures in a hospital such as Edendale, researchers endeavour to improve hospital functioning, the convenience and well-being of the patient being the major consideration. The results such research brings to light are published and circulated throughout the country as an aid to architects and hospital service authorities alike. Edendale is proud of its contribution.



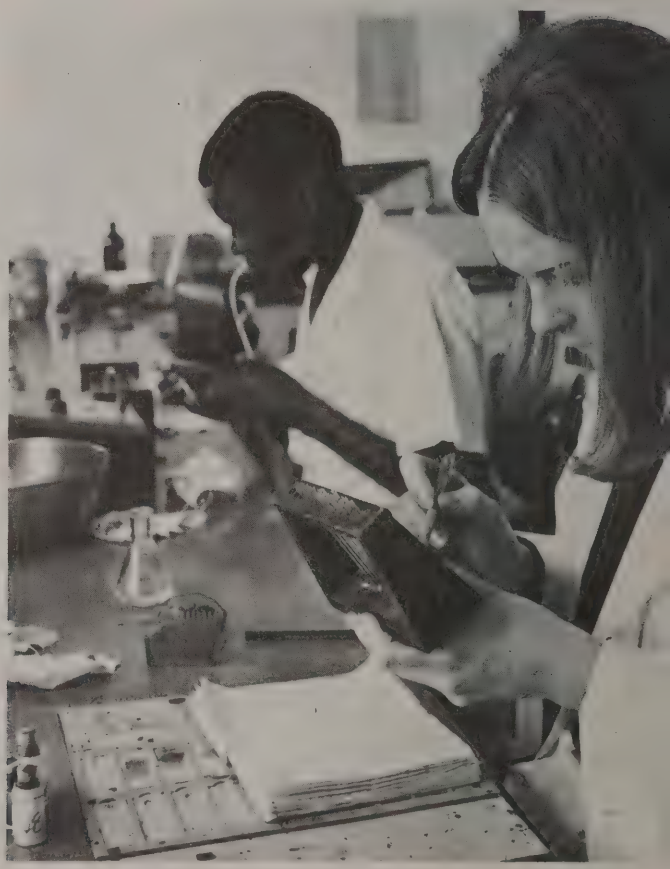
Two 3-weeks' old prematurely-born babies in the incubator unit. Extremely premature babies (under 2 lb. in weight) are kept in the unit until they exceed 3 lb. in weight. In this picture, one of the babies is being examined by a Bantu woman medico.



A scene in the intensive care unit, the first of its kind to be established in a South African Bantu hospital. The patients seen here are desperately ill, but they are in skilled hands and receiving the best possible attention.

Babies recovered from the effects of kwashiorkor, a vitamin deficiency disease caused by wrong rather than inadequate diet.

The fight against disease and sickness at Edendale Hospital—a scene in the bio-chemistry laboratory.



A fractured limb "in extension" in the hospital's orthopaedic ward.

Student nurses gathered around the notice board in the Nurses' Home, Edendale medical complex.

KING EDWARD VIII

Hospital – Durban

IN Congella, an industrial area of Durban, largest city and seaport of Natal, is to be found the King Edward VIII Hospital, serving two million South African Non-Whites, chiefly Zulus and Indians.

The "King Edward", as it is known to all in Natal, is one of the largest hospitals in the Southern Hemisphere, and the largest specialist hospital of its kind in a sub-tropical region.

It is unique in at least one respect; it was established during the brief reign in the United Kingdom of King Edward VIII – now the Duke of Windsor – and is one of the few hospitals in the world which bear his name. It is also a place where lives were lost before others could be saved; for when the site of the hospital was hacked out of the primeval Natal bush in 1936-37, several workers fell victim to the deadly black mamba, South Africa's most poisonous snake which infested the bush.

The King Edward is a microcosm. The hospital caters for every conceivable branch of medicine. Indeed, the health services provided by such institutions are responsible, in part at least, for the large increase of the Natal Bantu and Indian populations during the past 30 years.

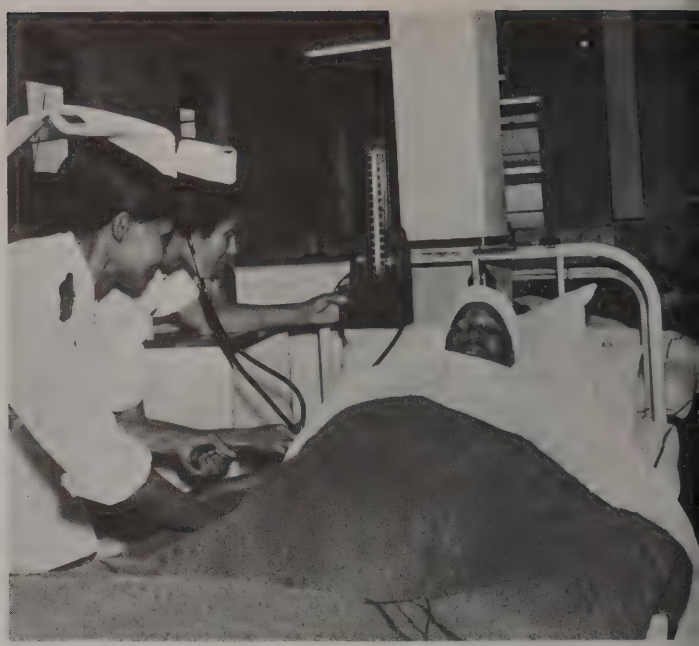
There is no more worthwhile testimony to the services provided by King Edward VIII Hospital than the hundreds of patients who daily flock to it. None is turned away.

It was not always so. Only recently have the Bantu come to accept Western medical practices, because even in these modern times many still believe in witch-doctors. The initial opposition of Natal Bantu, who attached more value to witch-doctors' medicines and "cure alls" than to modern medical services, such as are dispensed by the King Edward, has fortunately abated considerably.

Those who are unacquainted with Africa will hardly realise the immense difficulties encountered when modern health services were introduced among the Bantu. Even today Zulu witch-doctors still wield considerable influence, even among urbanised and Christianised Bantu. Many Bantu patients "play safe", as it were, by taking both the medical doctor's medicine and any remedy (usually herbal, and

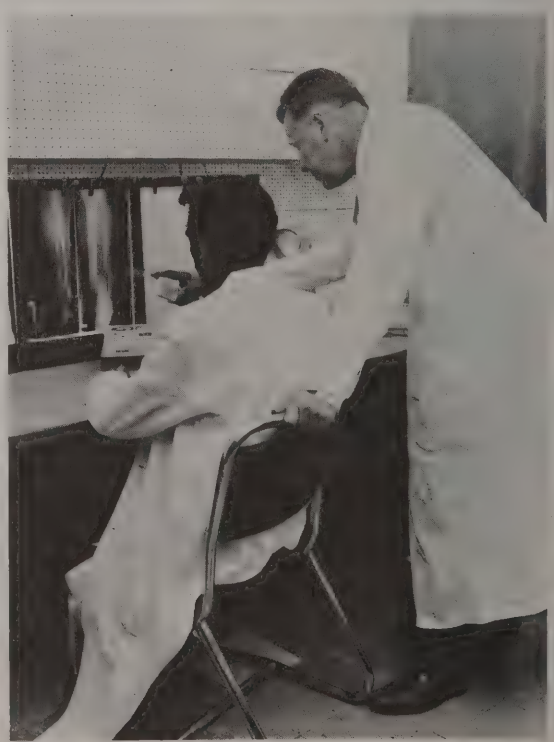
The Bantu Nurses' Home, King Edward VIII Hospital. These buildings comprise 50 separate dormitories and five self-contained flats. Between 750 and 800 trainee nurses are always in residence.

In the paediatric section a child patient is examined by a specialist consultant, a houseman, and a registrar.



A nursing sister demonstrates how a patient's blood pressure is taken.

A leg fracture below the knee is examined on a radiograph by a radiologist during a routine reporting session with a trainee-radiologist.



therefore not harmful) which may be prescribed by his favourite witch-doctor.

Bantu patients at King Edward VIII Hospital pay for treatment on a scale based on their earnings, the fee being determined by the hospital almoner. Pains are taken to ensure that no hardship is caused any patient by inability to meet even the most modest fee. If a patient is unemployed, old, senile, disabled, or indigent, he/she is treated free of charge by the hospital.

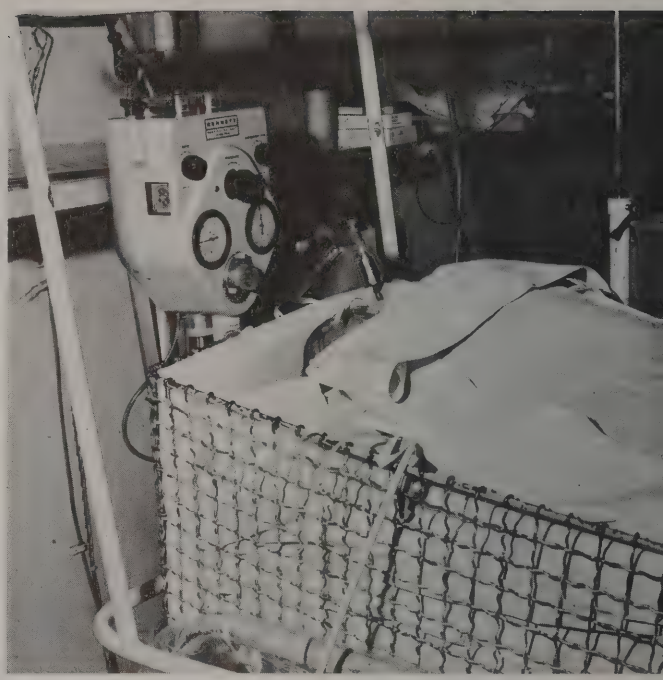
In most cases the charge is a purely nominal one of 50 cents, irrespective of whether the patient is treated for a minor complaint or a major operation is performed.

King Edward VIII Hospital statistics are impressive: 236 doctors are in full-time attendance. 117 of these are Non-White (principally Asian, although Bantu doctors are numbered among them). 30 White and 28 Non-White part-time doctors are always on call. 5 White matrons and 18 Non-White matrons control a staff of qualified nurses, 406 of whom are Non-White (almost all Bantu), and 21 Whites.

The bed-state fluctuates, but is of the order of 2,099 beds (all for occupation by Non-Whites). During the 12 months ended December 31, 1967, a total of 90,640 in-patients was accommodated at the King Edward. The number of out-patients who received treatment of one kind or another during the same year was 626,833.

An Indian radiologist screens a patient with the aid of a closed-ci television monitor (at nurse's elbow).

Zulu patients receiving prescribed medicines at a hospital dispensary counter.



Designed by doctors of the respiratory unit, the assisted ventilation (breathing) machine seen here is fitted with a warning monitor which alerts nursing staff of any cessation of breathing on the part of the infant patient who is recovering from tetanus.

During a recent unexceptional month, June, 1968, the average number of out-patients treated daily was 1,718. In the same month, the average number of meals served every 24 hours was 12,135. This is equivalent to 5¼ tons of food per week.

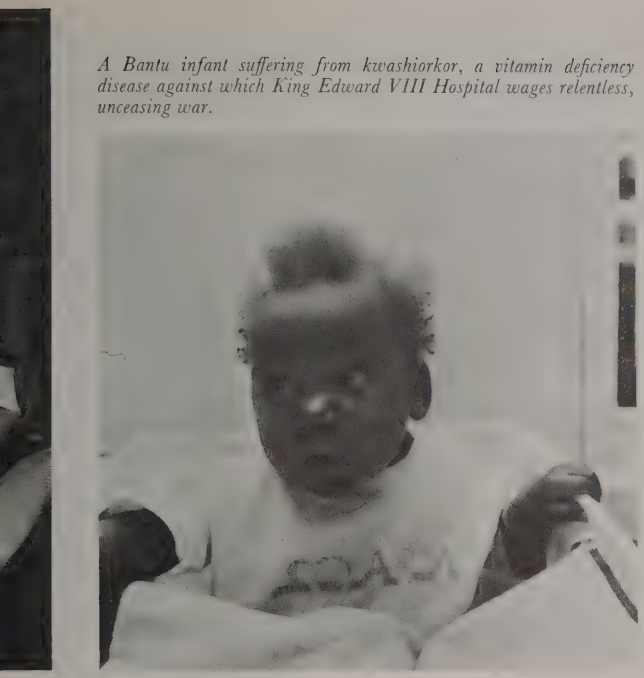
During the whole of 1967, the number of minor operations performed at King Edward VIII Hospital was 29,929. Major surgical operations in the same period totalled 7,368.

King Edward VIII Hospital, with its wealth of clinical material – material of a diversity scarcely found elsewhere in South Africa – offers tremendous scope and a golden opportunity for research in the field of diseases encountered in a sub-tropical climate. Visiting specialists and staff members of the University of Natal make full use of the hospital's theatres and halls for lecturing purposes. There is scarcely a break in activity in King Edward's fifteen modernly-equipped theatres.

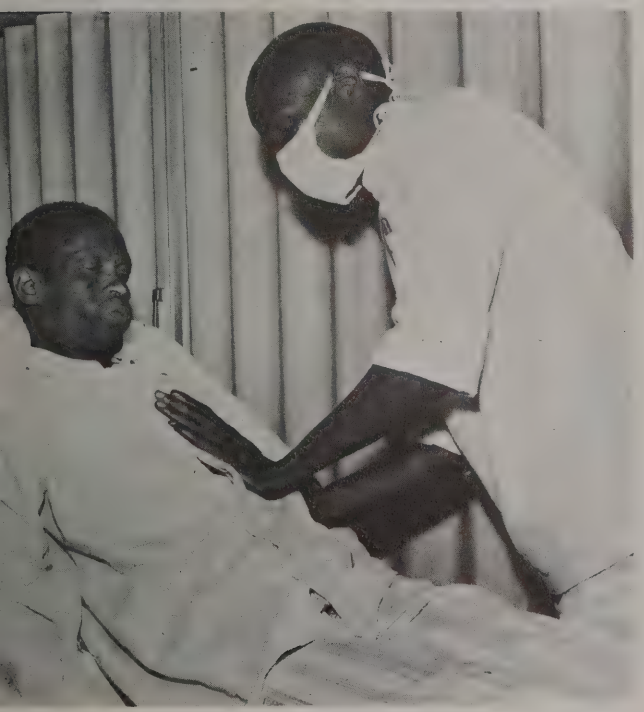
In the field of research, encouraging results have been obtained in researches into better and more

An Indian physiotherapist exercising the deformed hands of a patient suffering from a disease of the joints; heat treatment is being given simultaneously to deformed feet and knees.

A Bantu infant suffering from kwashiorkor, a vitamin deficiency disease against which King Edward VIII Hospital wages relentless, unceasing war.



A final year Bantu medical student (right) demonstrating breathing exercises on a patient under treatment for a chest condition.



efficacious treatment of kwashiorkor (a vitamin-deficiency disease all too common amongst a Non-White people who resist protein-rich foods) and into amoebiasis, and tetanus. Fully-equipped and staffed research units have been established at King Edward to promote research into the last two pathologies.

Skimmed milk powder (among other things) is used extensively as a food supplement in the fight against kwashiorkor, a ceaseless battle in which King Edward VIII Hospital has mobilised every available resource.

The maternity section of King Edward VIII Hospital is among the largest in the world. During the year 1967 no less than 19,062 babies were born there–slightly more than 52 babies every day. 15,438 of them were Bantu, and 3,624 Asian.

More than 2,300 persons are responsible for the efficient organisation and smooth running of this vast hospital. In addition to the staff already noted, the following categories of staff contribute to the day-to-day activity at King Edward:

	Whites	Non-Whites
Student nurses	—	629
Midwife student nurses	—	174
Nurse aids	—	161
Auxiliaries	—	70
Sister tutors	13	3
Administrative personnel	77	128
Paramedical personnel	25	22
General personnel	60	160
Domestic	—	822
TOTAL:	175	2169

Attached to the hospital is the King Edward VIII Nursing College for Non-Whites. It is accommodated in spacious, convenient buildings and hostels. All the trainee nurses live on the premises. In mid-1968 there were 756 trainee nurses in residence. (These included midwife student nurses, but the numbers fluctuate from month to month, as some students leave and new students are enrolled.) There are 50 full-size dormitories and 5 self-contained flats in the Bantu Nurses' Home.

The Nursing College not only supplies trained nurses to King Edward VIII Hospital, but also to institutions throughout the length and breadth of South Africa.

Nurses are trained in five divisions, summarised below:

(1) **General Medical and Surgical Nursing (Certificate)**
(2) **Midwifery (Certificate)**
(3) **Nursing (Diploma)**
(4) **Ward Administration & Clinical Teaching**
(5) **Operating Theatre Techniques**

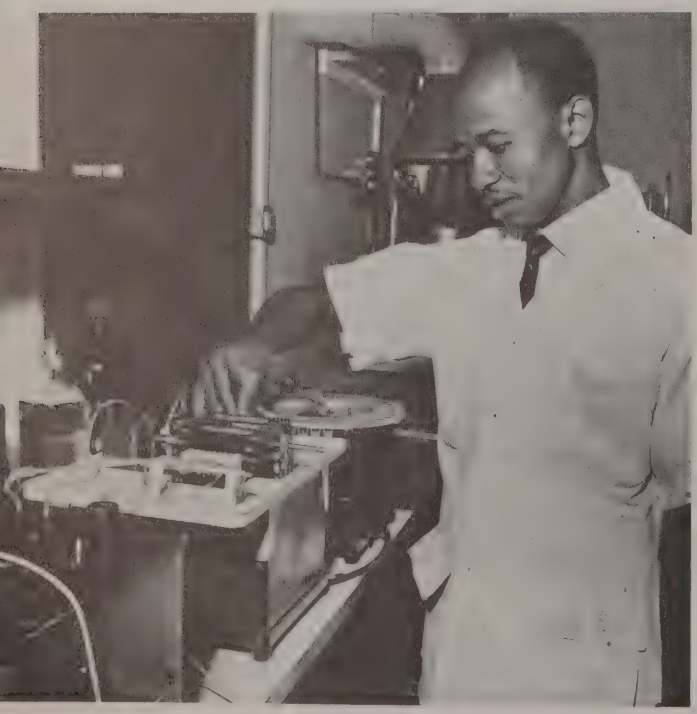
King Edward VIII Hospital also runs a School of Radiography and a School of Physiotherapy. Training facilities in all of these divisions are for Non-Whites only, the majority of whom are Bantu, the remainder Indians, with only a very occasional Coloured person (the Province of Natal has the smallest Coloured population in South Africa). All certificates and diplomas awarded are recognised by the Medical Councils of South Africa, and of the United Kingdom.

Adjoining the hospital is a Non-White Medical School, conducted by the University of Natal in association with King Edward VIII Hospital. It was established by the South African Government in 1951 at a cost of R810,000. The Government also subsidises the medical faculty at an annual cost in excess of R120,000.

Naturally, the activities of the Medical School are inextricably bound up with those of the hospital next door, which is used by students as a centre for their practical training, chiefly because of its wealth and variety of clinical material. Upon graduating, many of the students are employed by King Edward VIII Hospital.

An Indian technologist manipulates a "Coulter" Blood Cell Counter. The laboratory of this hospital was the first in South Africa to train Bantu and Indians as technologists—about 20 qualified Non-White medical laboratory technologists are now registered with the South African Medical and Dental Council.

A laboratory technologist operates an auto-analyser for blood examination.



Bantu, Indian, and Coloured students are trained in the medical faculty. Students from neighbouring territories (Botswana, Lesotho, Rhodesia, Zambia, and Swaziland) are also admitted to the Medical School by agreement between the South African Department of Foreign Affairs and the governments concerned.

A large infectious diseases unit has been established in the hospital grounds. All kinds of infectious cases are admitted to it, where study and treatment are possible under optimum conditions of sterility and safety. Highly specialised and intensive nursing care is also applied in the tetanus unit. Today, more than 80 per cent of tetanus victims, who would most assuredly have died of lockjaw in years past, are saved by treatment prescribed by the hospital.

The hospital was also one of the first establishments in South Africa to introduce a central sterilisation unit. This section, where thousands of articles are handled daily, serves a most important function, since it offers both patients and staff a safer and more efficient sterilisation service than that which existed formerly.

Nursing students writing an examination in midwifery under the vigilance of an official in the communal Hospital Hall which seats 500.

Unloading medical dressing packs from an autoclave for distribution to hospital wards. Instruments and other items placed in the autoclaves are subjected to cleansing by steam under tremendous pressure.

Bantu and Indian technologists at work in the hospital's department of chemical pathology.

LIVINGSTONE HOSPITAL

Port Elizabeth's Non-White Pride

LIVINGSTONE Hospital, Port Elizabeth, is a vast complex of healing whose aim is to provide the city and its near hinterland with the best possible medical service for all the Non-Whites of the Eastern Cape Province.

Opened in October, 1954, Livingstone has 936 beds. Hospital services provided include:

(a) General medical
(b) General surgical
(c) Maternity
(d) Radiology
(e) Physiotherapy
(f) Occupational therapy
(g) Specialist services

There are 90 full-time doctors on duty at Livingstone, the majority Non-Whites. Indeed, Livingstone is, at the moment, the only hospital in South Africa where Non-White doctors outnumber White doctors — a gratifying confirmation of an important Government ideal that Non-Whites should look after their own people, even in the medical field. A further 20 full-time posts are distributed among outside doctors (all specialists). 2,049 persons are employed full-time on the hospital premises. A further 100 persons are part-time lecturers whose services are drawn on as they are required.

On every working day, about 1,000 staffers are caring for the hospital's in-patients, while another 700 persons are looking after out-patients. The balance of 300 comprise administrative, non-nursing, and general duties personnel.

There are 329 trained Non-White nurses who fill such posts as: Matrons, Sisters (Grades 1, 2, & 3), Tutors, Male nurses and other male posts, and midwives. There are also 635 Student Nurses, and 167 Student Midwives.

During 1967 a total of 35,440 in-patients were housed in the wards. There were 319,059 attendances in the Out-Patient Department. 8,377 live births took place in the hospital.

The total costs of running Livingstone Hospital in 1967 was R3,177,384.

Other interesting statistics and information relative to Livingstone Hospital are that each in-patient had an average stay of 10.22 days; there were 3,368

A general view of some of the principal buildings comprising the Livingstone Hospital complex.

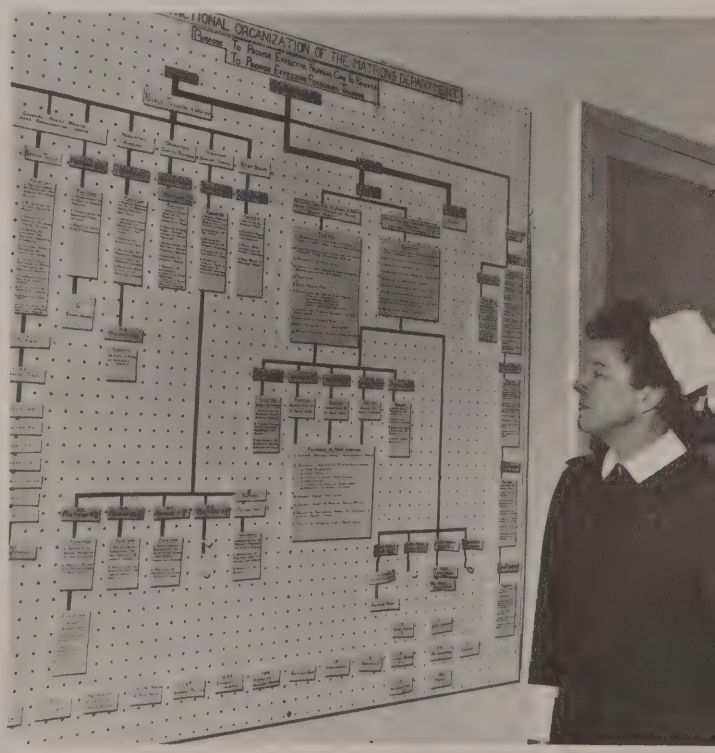
major and 17,818 minor operations in 1967; X-ray examinations totalled 49,857, and Maternity Home nursings scored 64,995, with a further 802 confinements in the patient's home. District nursings totalled 8,116 (all at-home cases). 278,036 casualty attendances were recorded in the year.

So many out-patients attend, that it has become increasingly difficult to complete the General Medical Out-Patient Clinic before 5 p.m. daily, even with the help of outside general practitioners. Today, Non-Whites are coming to hospitals with complaints that a decade ago they would have taken either to a local clinic, or about which they would have sought the advice of a district medical service member.

Out-patients are charged 20 cents for each consultation and treatment. If the patient cannot pay even this modest fee, he/she is admitted anyway. Genuinely indigent patients are marked "free patient" by hospital almoners. It is well known that many patients who can well afford to pay are obtaining treatment perfectly free of charge, but Livingstone deems it better to honour the true spirit of healing, rather than make an issue of the token fee.

In-patients pay a primary fee of R1 for one day's stay, or a month's stay. Under certain circumstances, a basic fee of R3 is charged a certain type of patient, and others, better off financially, pay a daily in-patient fee of 60 cents (this, of course, includes bed all board, and medicines). 5 per cent of all patients are members of Workmen's Compensation schemes. The proportion of Workmen's Compensation cases to private fee-paying cases is of the order of 4 to 1.

The hospital's Matron examining an organisational chart.



A staff nurse taking a blood specimen from a patient for examination to determine accurately the cause of illness. In rear, the Paediatric Block.

A student nurse preparing to give an injection to a patient.

Apart from the ordinary nursing training available at Livingstone, the hospital also offers its nursing trainees courses in Ward Administration, Theatre Procedure, and Radiography Technique. The course for Non-White radiographers is of two years' duration, and a similar-length training course for Apprentice Pharmacists (Non-Whites) is also offered—the remaining three years of a Pharmacist's course is done at a recognised university. All Non-White trainees write the same State examinations as are written by White students.

Staff nurses collecting sterile stores from the sterilisation unit.

Apprentice pharmacists dispensing medicines in the hospital's Dispensary (this work is done under the supervision of qualified White pharmacists).

Two years ago, Livingstone Hospital had added to it a modern, self-contained Children's Hospital which cost R300,000 to build and commission. Despite the new facility, the number of children requiring admission to the Paediatric Block is so great, that cases for admission have to be carefully selected, and a large number of ill children still have to be treated as out-patients.

Dealing with semi-primitive Non-White peoples presents South African hospitals (Livingstone included) with problems unique to the country. One such problem is posed by the immediately foregoing statistics relating to numbers of in-patients and out-patients, and may be summed up in the single word 'overcrowding'. Like all South African Non-White hospitals, Livingstone swarms with people a good deal of the time.

Non-White patients are often ignorant of hospital discipline which restricts visiting to certain defined hours. A fecund people, the Bantu number their relatives in the dozens, even hundreds. Hospital visiting is almost a social occasion in Bantu eyes, and droves of relatives and friends jam hospital corridors

Cleaning tubing, catheters and needles in preparation for sterilisation.

Preparing operating theatre packs for sterilisation.

A patient whose paraplegic condition was caused by an accident in infancy. This child is a long-resident patient who has been at Livingstone since 1965. Despite his affliction, the patient evidences an invincible cheerfulness which has endeared him to all with whom he comes in contact.

An electric gauze-cutter used in the preparation of medical dressings.

A typical cross-section of out-patients. The bust above the seated patients is of Dr Livingstone (1813-1873), after whom the hospital is named.

and wards, all insistent on reassuring themselves that the patient is receiving the best available treatment.

An Intensive Care Unit is also a feature of Livingstone, and many very ill Non-White patients have been successfully nursed back to good health in this invaluable unit.

In August, 1967, an Alcohol Clinic was established to handle the increasing number of patients suffering from alcoholism. Cases are referred to the Clinic from the hospital wards, and also as out-patients. The majority of the out-patients in this group are known as "pressure referrals", i.e. they are compelled by family, friends, employers, and society in general to undergo treatment. The other class of alcoholics are called "self referrals", the meaning of which is obvious. The "self referrals" do invaluable service by making known the existence of treatment facilities.

Abortion, too, is a scourge within the periphery of influence of Livingstone; it is, indeed, the greatest single cause of admissions to the Gynaecological Section of the hospital. It is hoped that with greater awareness of "Family Planning" facilities, a drop in the incidence of this infliction may be felt.

Livingstone is responsible also for the maintenance of an Ante-natal Clinic in the New Brighton suburb of Port Elizabeth. 33,200 attendances at the Clinic were recorded in 1967. A District Medical Service is operated by Livingstone in New Brighton.

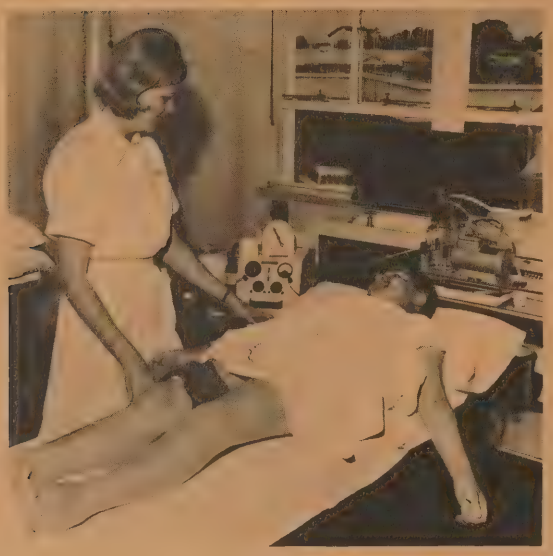
In 1967, this Section delivered 399 babies, of whom 223 were B.B.A.'s (births before arrival—at the hospital). 42,376 patients were nursed by the District Medical Services in 1967.

Among the Coloured peoples especially of Port Elizabeth, Livingstone Hospital is a warm beacon of hope. It holds a very special place in the hearts of the city's Coloured community, while the Bantu section of the population is equally aware of the healing services it dispenses. The hospital's connection with the famed Scottish explorer is minimal—indeed, hardly existent (the hospital was so named because Livingstone lived and worked among the Non-White peoples of the African continent), and is confined to the fact that the great missionary used Port Elizabeth as an occasional base from which to mount his assaults on the "Dark Continent".

More importantly, and more pertinent, is that the name Livingstone connotes the thrusting back of a frontier—in this case the frontiers of medical knowledge. In this regard, Livingstone Hospital is a trail-blazer in the same sense as was he who has given his name to a great institution of healing and of hope.

RED CROSS

Children's Hospital



SITUATED in the beautiful Cape Town suburb of Rondebosch, the Red Cross War Memorial Children's Hospital has an international reputation for paediatric and surgical research. It also shares in the achievements of nearby Groote Schuur Hospital, scene of the world's first human heart transplant operation performed by Dr Christiaan Barnard on December 3, 1967.

As a result, interest has been intensified in the work of the Red Cross Children's Hospital where Professor Barnard and his team have performed several open-heart operations on child patients from European countries.

The story of the foundation of the Red Cross Hospital is an interesting one. At the end of the Second World War, the Cape Province region of the South African Red Cross Society decided to establish a memorial of an uplifting and enduring character to the memory of the sacrifice, the suffering, and the service of all South Africans in that war.

It was felt that the memorial should provide a lasting, worthwhile service to humanity. Because of the acute shortage of accommodation for children in the existing Cape Province hospitals, it was decided that no worthier memorial could be erected than a children's hospital.

The Red Cross Children's Hospital is a pleasing architectural facility—a 6-storeyed star-shaped complex of modern buildings occupying 20 acres of ground on an open site bounded by good roads on all sides. It is also probably the best-equipped and planned children's hospital in Africa. It is certainly the best known.

The Red Cross Children's Hospital offers specialised treatment covering a wide spectrum of childhood ills. More important is the fact that it offers these specialised facilities to all classes and all races. It serves not only the Cape Province, but the whole of the Republic and countries beyond its borders, children being brought to Cape Town from all parts of the world.

In contrast with specialised institutions in certain countries where similar treatment can only be obtained at high cost, no needy cases are ever turned away from the Red Cross Hospital. More often than not, no charge at all is made.

THE RED CROSS WAR MEMORIAL
CHILDREN'S HOSPITAL
ROOIKRUIS OORLOGSGEDENK
KINDERHOSPITAAL

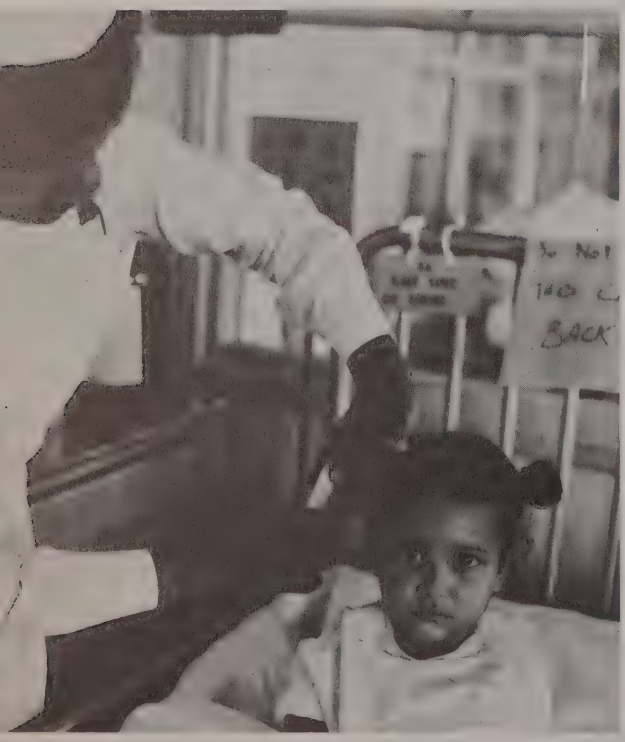
SA RED CROSS SOCIETY
SA ROOIKRUISVERENIGING

The Tableau of Dedication in the foyer of the Red Cross Children's Hospital.

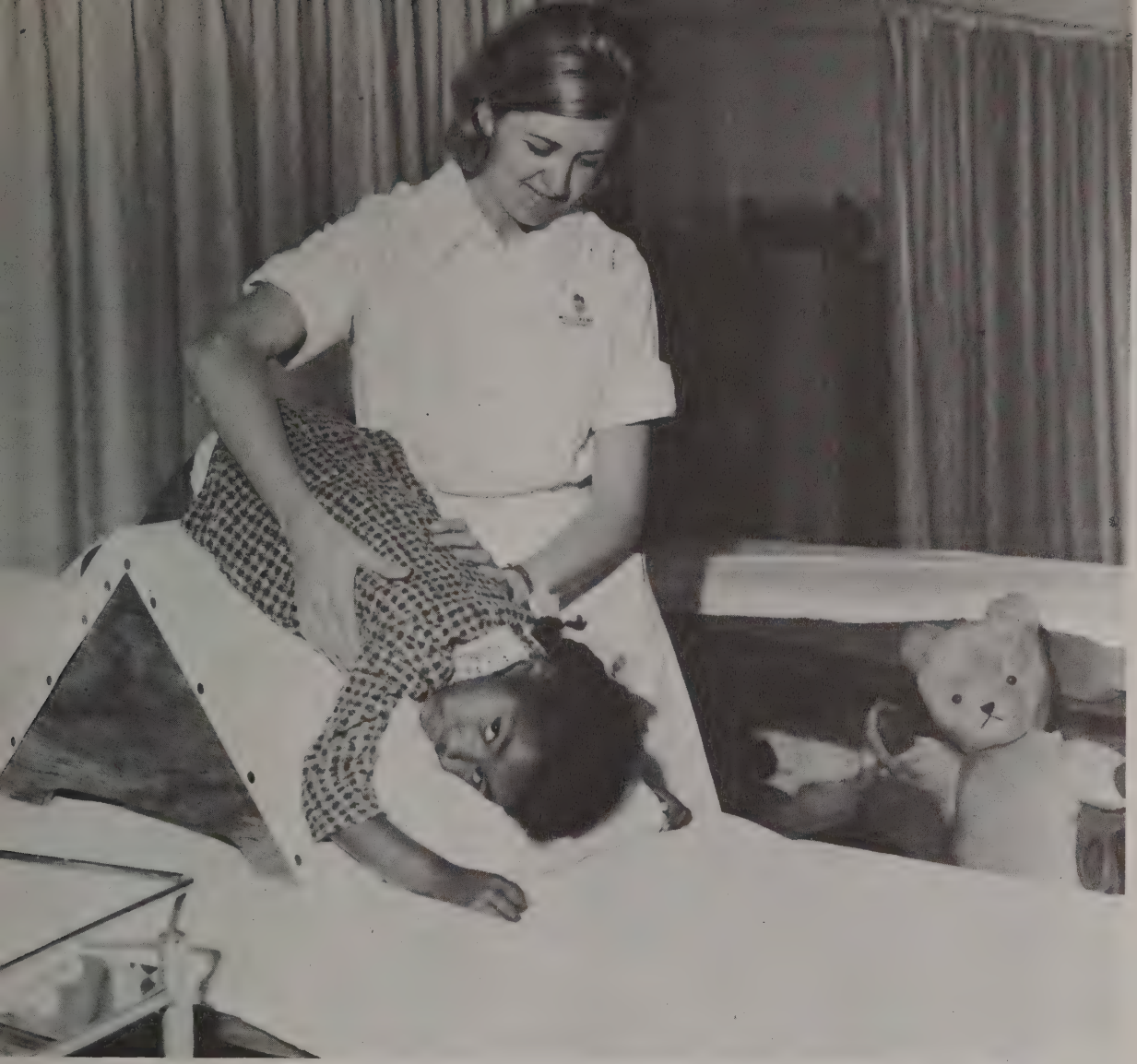
A ward wing of the Red Cross Hospital. Huge Groote Schuur Hospital can be faintly discerned above the left corner of the building.

A cerebral palsied Bantu child being taught head control (movement co-ordinated with eyesight by watching the swinging ball) and the beginnings of crawling (over a padded drum).

A young patient in the Red Cross Children's Hospital for preliminary investigation into the nature of her ailment.



An anxious Coloured mother (right, in face mask) looks at her 15-months-old son who has undergone surgery for an inborn defect.



A child out-patient of the Red Cross Children's Hospital being given postural drainage and vibrations to clear her chest.

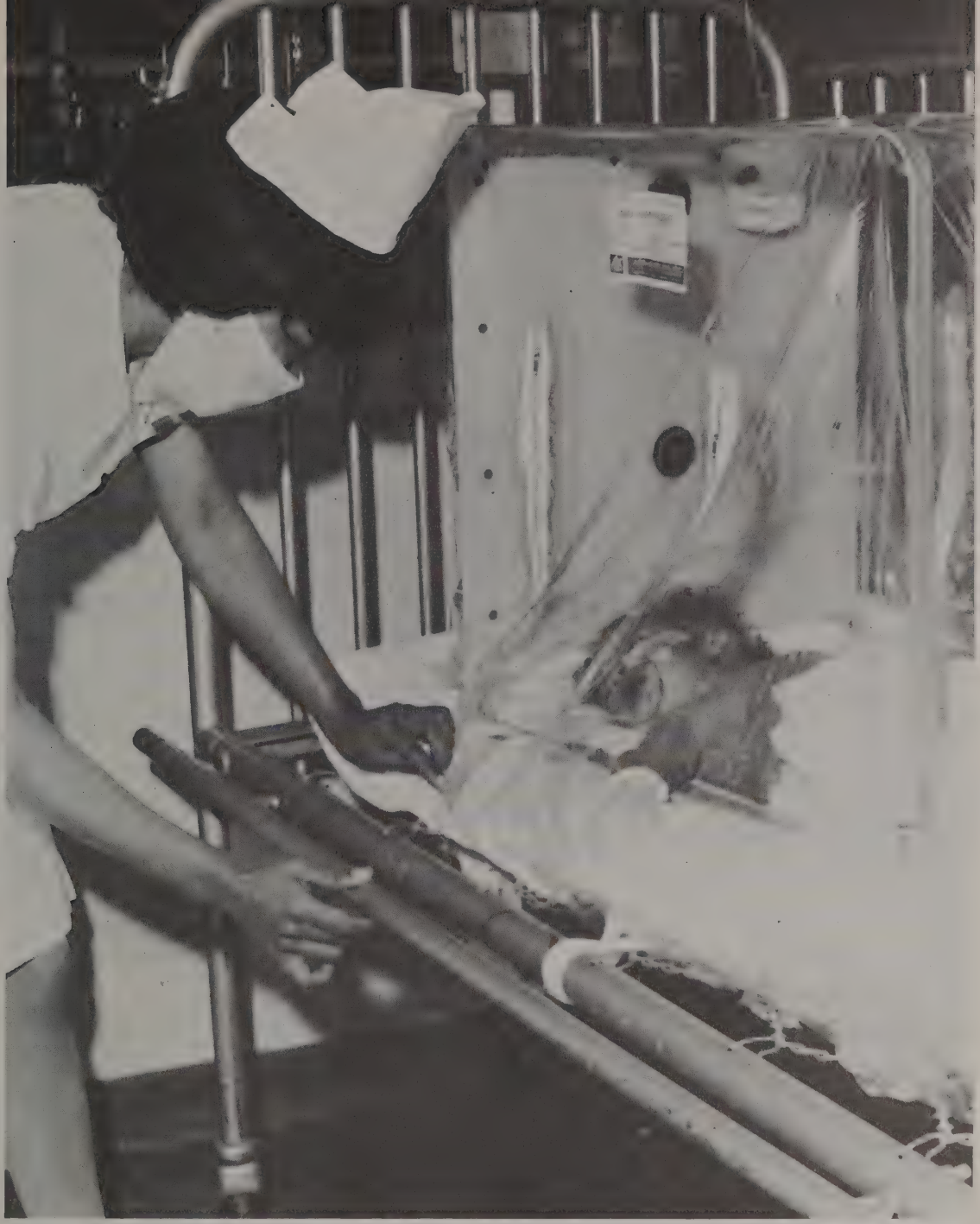
The out-patients department is open right around the clock, seven days a week. More than 1,000 out-patients are seen daily, accompanied by their parents or relatives, so that the "traffic" in the wards and halls is considerable. A new out-patients department was completed recently at a cost of R1,000,000.

Apart from its medical services, the hospital serves as a training centre for the undergraduates of the University of Cape Town, and for post-graduate medical students and nurses. It provides a post-basic course for the Certificate of Paediatric Nursing and also serves as a research centre for the study of malnutrition.

The Red Cross Children's Hospital presents unique opportunities for research, as it is one of the few places in the world where deficiency diseases can be studied without the complications of tropical diseases confusing the issue. Since the hospital's patients come from a complex social structure, White and Non-White, rich and poor, there is a wealth of comparative material.

The socio-economic diseases, kwashiorkor and pellagra, are studied in conjunction with other research institutes such as the Nutrition Research Institute of the South African Council for Scientific and Industrial Research, and the United States Public Health Service.

One of the chief aims of the research in this field at the Red Cross Hospital is the perfection of inexpensive plant and animal protein foods, and a point has now been reached where, at the cost of only a few cents daily, people can remain healthy on specially enriched foods.



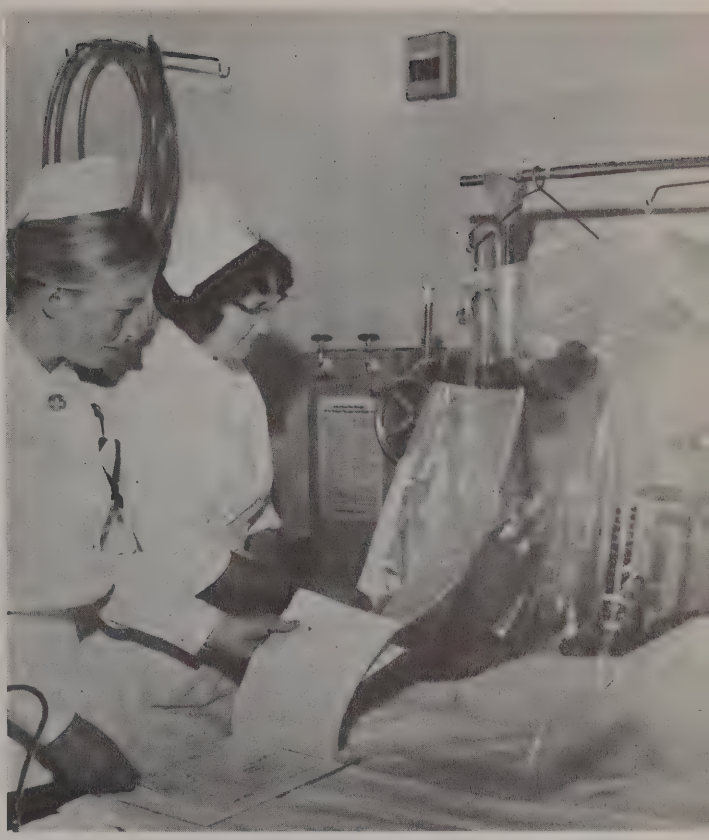
A chronic asthmatic child receiving oxygen and humidified air. An enrolled auxiliary nurse is in attendance on the infant patient.

The hospital Matron with a one-week-old child in the premature baby incubator. The infant weighs 2 lb. 4½ oz.

Prior to his tragic death in an air disaster, Mr Philip Hind of Durban produced "Pro-Nutro", an enriched food which was recognised by a special sub-agency of the United Nations, concerned with such foods, as being the best product of its kind in the world. It is available to all sub-economic family units through government- and/or municipal-assisted feeding schemes.

The Red Cross Children's Hospital serves as a centre

A nursing aide with an infant in the neo-natal tetanus unit.



A child patient in an oxygen tent in the post-operative open-heart surgery unit. The patient's progress is monitored by a special apparatus which records the heart-beat audibly, so alerting the nursing staff immediately in the event of cardiac arrest.

st-tetanus case, has been at the Red Cross Hospital for 8 months: she is being taught how to crawl and to sit.

from which information on hygiene is disseminated among the multi-national population of the Western Cape Province.

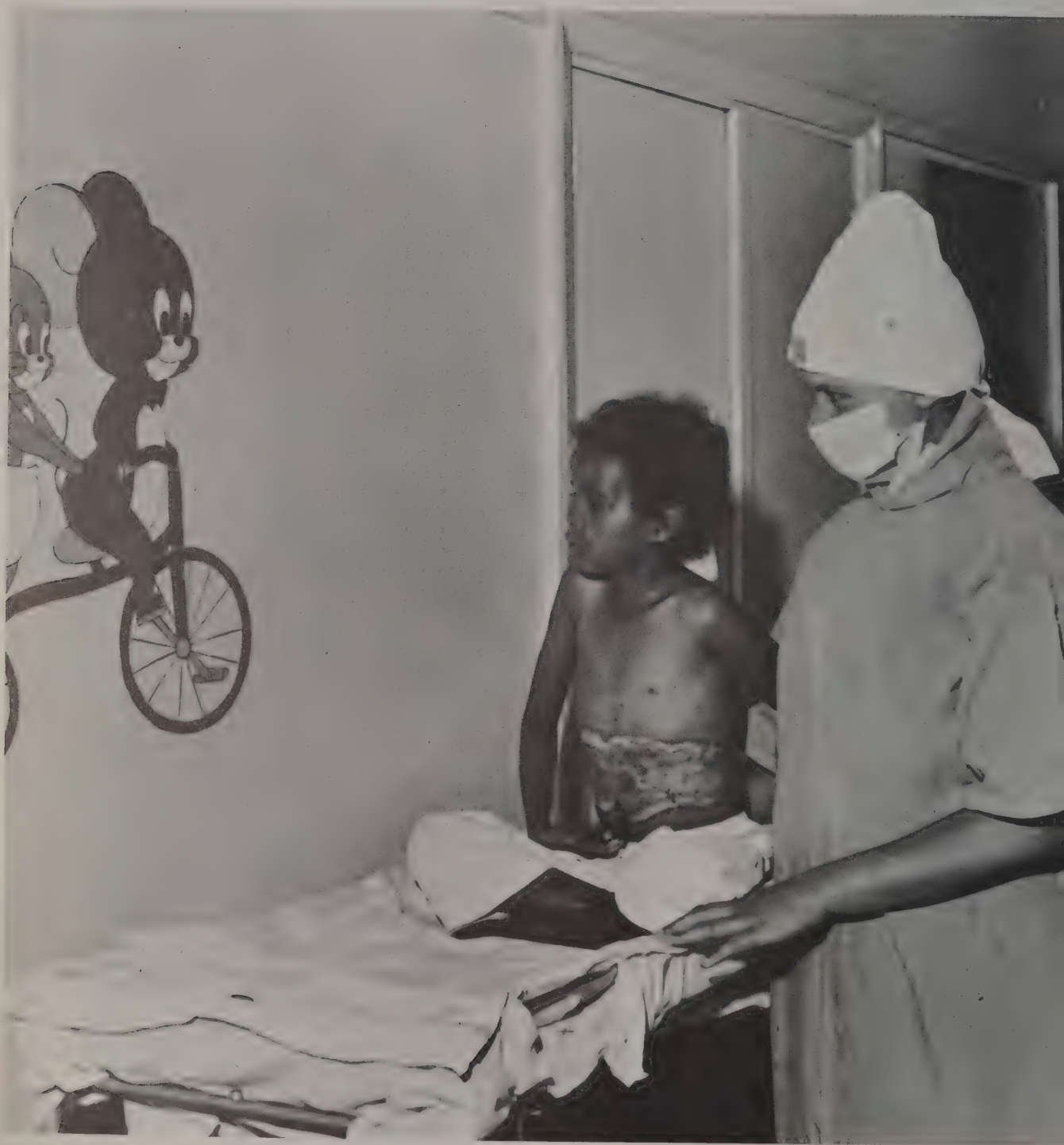
For the Coloured population group in particular, the Red Cross Hospital is a real boon. Admissions of Coloured patients are in the proportion of four Coloureds to one White patient.

Apart from full-time and part-time medical specialists of every type attached to the Red Cross Hospital, there are general practitioners, dental surgeons, speech therapists, occupational therapists, physiotherapists, orthodontists, radiographers, clinical assistants, house doctors, school teachers (long-term patients must continue with their school lessons), dieticians, social welfare workers, and dozens of others covering various fields.

One of the great achievements of the Red Cross Children's Hospital was the successful grafting of a special plastic valve in the heart of a patient suffering from a leaking valve. The operation was the first successful one of its kind performed anywhere in the world. Indeed, the hospital is renowned for its open-heart operations, many of them performed by the famous Dr Christiaan Barnard and his highly-skilled team. Children with inborn heart defects are today being referred to the Red Cross Hospital and to Dr Barnard and his team by hospitals all over the world.

In the South African winter months (but also to a lesser degree in summer) the hospital must cope with many child patients suffering from burns. These patients are treated in a special section where the humidity and temperature of the air supply is regu-

An eight-year-old Coloured child ready for skin-grafting.



lated. The air is also filtered to prevent burn wounds becoming septic. This technique has been developed in certain South African hospitals (including the Red Cross Hospital and Edendale Hospital, Pietermaritzburg) over the past 10 years. According to a recent Press announcement, it is now being used in Swedish hospitals too.

Another remarkable technique employed in the Red Cross Hospital is for treating lock-jaw in new-born infants. They are treated in a special respiratory unit by paralysing the muscles with curare and pumping air into the lungs. During this time, the causative organisms of the disease are destroyed. Some remarkable successes have been achieved.

During the long summer months in South Africa, the incidence of gastro-enteritis increases. The disease is often fatal in children if not treated in time. More than 1,000 enteritis cases are treated annually at the Red Cross Children's Hospital.

Like all successful hospitals, large or small, Cape Town's Red Cross War Memorial Children's Hospital constitutes a triumph over physical adversity.

"Pinky" learning to walk, a trifle unsteadily as she suffers from a weakness of the legs from an unknown cause.

BOPHELONG

Place of Life

WEST of Pretoria, administrative capital of the Republic of South Africa, is Tswanaland, traditional homeland of the Tswana national group of Bantu peoples (population: 1,338,000).

Their country – one of the best cattle ranching areas in South Africa – made great progress towards self-rule on December 12, 1968, when the new Tswana Territorial Authority was inaugurated at Mafeking.

Tremendous progress has also been made with regard to health and hospital services for the Tswana people in recent years. Today, 90 per cent of the more than one-and-a-quarter million Tswanas live within a 50-mile radius of a major hospital, and all are within easy range of ambulance services. Outlying areas are served by stationary and/or mobile clinics, and in a case of real emergency a sick patient can be flown to the nearest hospital with very little delay.

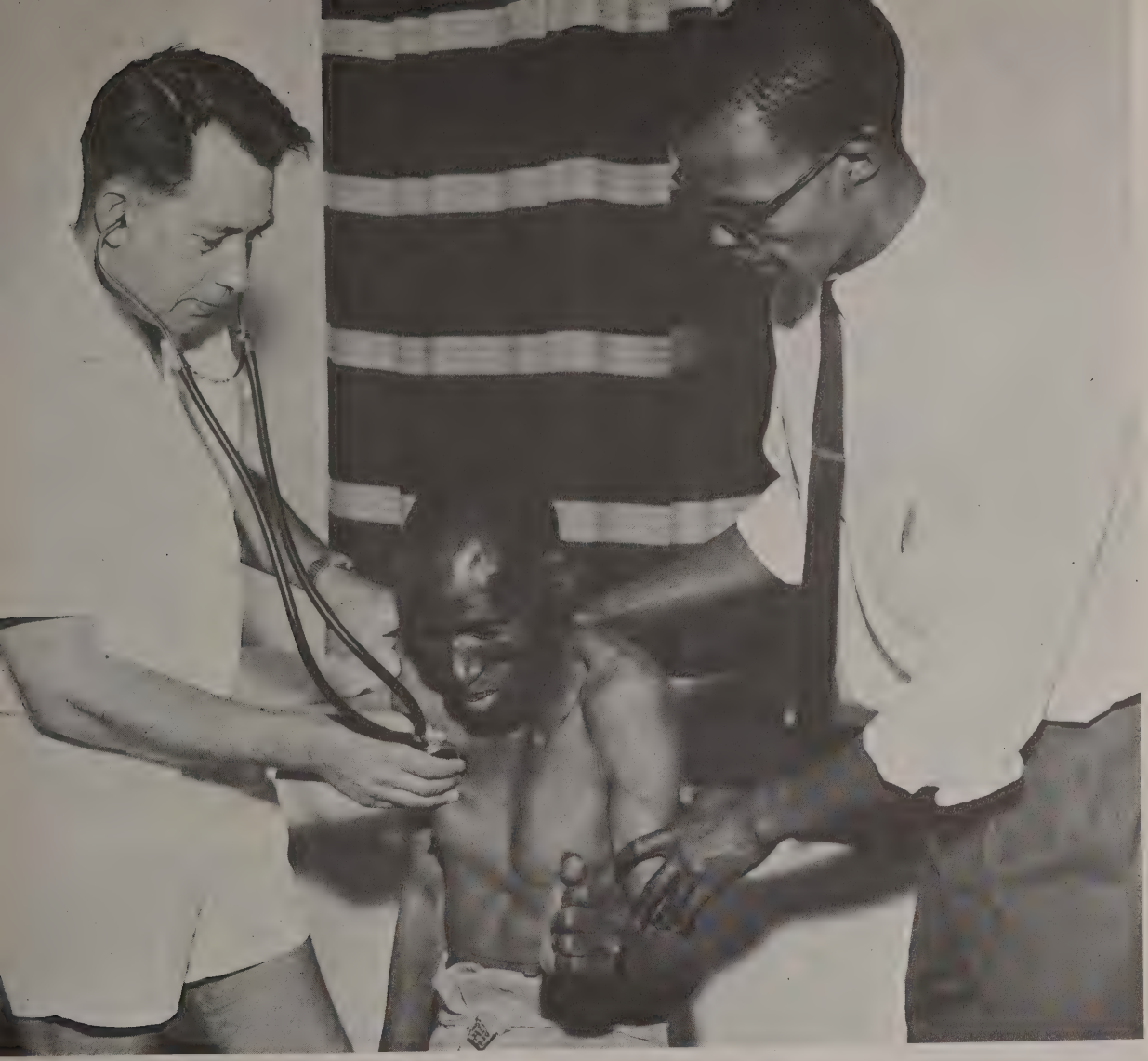
These facilities are the result of considerable long-range planning and its execution over very many years, and demonstrate clearly the South African Government's resolve to give the Bantu people every possible assistance along the road to independence.

The two chief Non-White hospitals in the Territory are Bophelong at Mafeking, and Thusong at Sheila 15 miles from Lichtenburg on the Mafeking road. Both hospitals are among the largest of their kind ever built in a predominantly Bantu region by the South African Government. Together, they represent a capital expenditure slightly in excess of R2,000,000. Annual running costs consume a further two million rand.

Bophelong means "Place of Life". Unfortunately, however, many of this hospital's patients may never be fully cured of the mental disturbances which beset them, for Bophelong is in the main a psychiatric hospital.

The hospital was planned originally for general, maternity and psychiatric cases but, as a result of a shortage of accommodation for the mentally sick, it was decided that Bophelong should be used exclusively for psychiatric cases for the time being.

Bophelong is planned to take 2,500 beds ultimately. At the moment, 1,856 beds are occupied – 1,280 by male and 576 by female patients. Two wards are occupied by feeble-minded children who have been drawn from hospitals throughout the Republic.

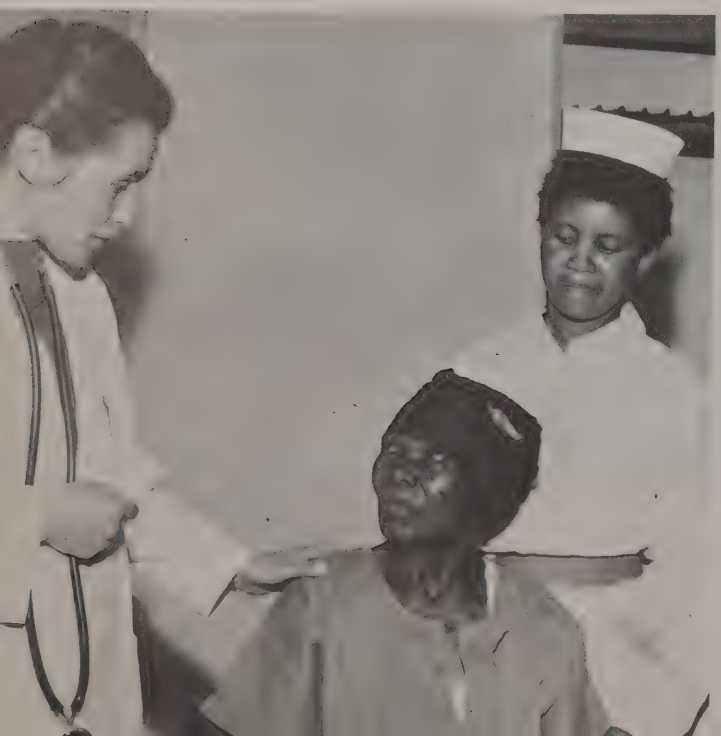


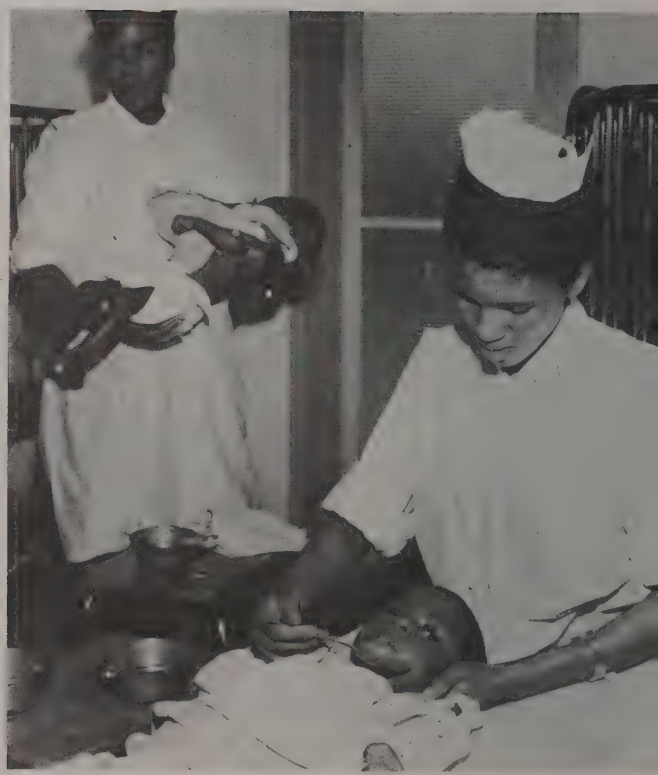
A specialist psychiatrist examining a patient who exhibits an old head wound. On the right is a Bantu psychiatric charge nurse.

One of the hospital's fleet of ambulances.

Psychiatric cases seen in a typical ward of Bophelong Hospital.

A doctor (left) with a preliminary nurse interviewing a Tswana patient.





Feeble-minded girls being fed by Bantu psychiatric nurses.

No admission fees or charges of any kind are made. Each patient costs the central Government 78 cents per day. The estimated costs of running Bophelong Hospital for the year 1968/69 are R813,358, all of which is borne by the Department of Health.

Medical officers (including a specialist psychiatrist) and secretarial and other administrative posts total 20 at present. All will eventually be held by Bantu, as suitably qualified persons become available. Ideally, and ultimately, Tswana medical personnel only will serve Tswana patients.

At present, there are 401 Bantu on the hospital staff. They comprise nursing staff chiefly—sisters, staff nurses, assistant nurses, male charge nurses, male nurses and assistant male nurses.

Boys at lunch, attended by male and female Bantu psychiatric nurses.

A representative group of Bophelong patients, psychiatric cases.

Male patients cutting up old motor tyres which they make up into effective, useful rubber doormats (specimens in foreground).

A group of patients doing embroidery and knitting.

A view of the laundry which is equipped with every labour-saving device.

Women patients doing general sewing and mending in the occupational therapy section.

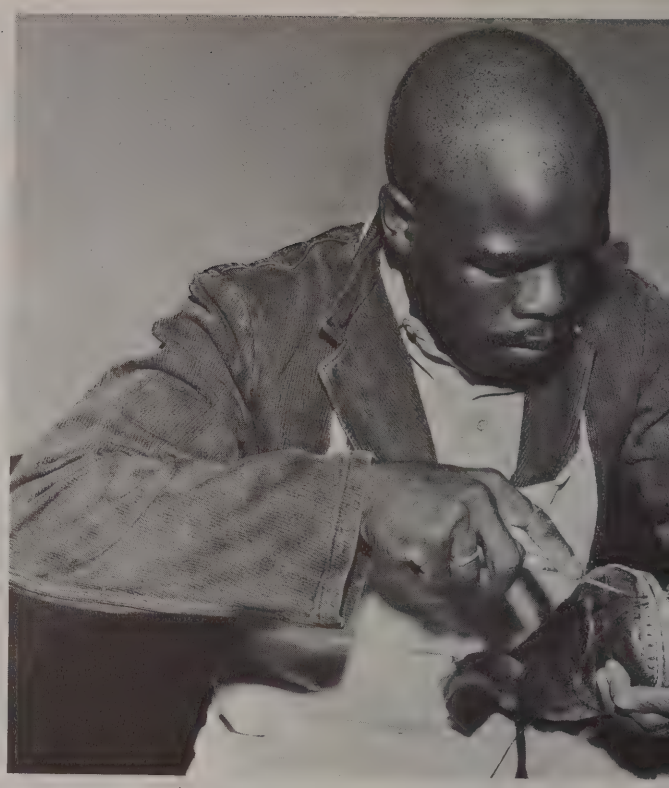
The hospital's laundry handles about 75,000 pieces of linen per month.

The majority of mental patients commonly enjoy a state of euphoria, or extreme wellbeing, so that most of the patients are not confined to bed. Indeed, they would find that irksome. Much of the daily physical work of the hospital is performed by the patients themselves, and represents an integral part of their medical treatment or therapy. This is in line with similar methods employed throughout the world in the treatment of disordered minds.

All the wards are sub-divided into sections by four-feet high partitions covered with white tiles closely resembling grained marble. The effect is most pleasing, and in the hot weather, which is a feature of the area, these sensible "cool" surroundings are much appreciated.

Outside each hospital wall is a "lapa" area—a sunny open space in which to relax, and of particular value in the case of the mentally disturbed. It is suitably equipped with seats and benches, and here the patients receive their visitors in traditional Bantu fashion.

A male patient turns out creditable leather wallets in the occupational therapy section.



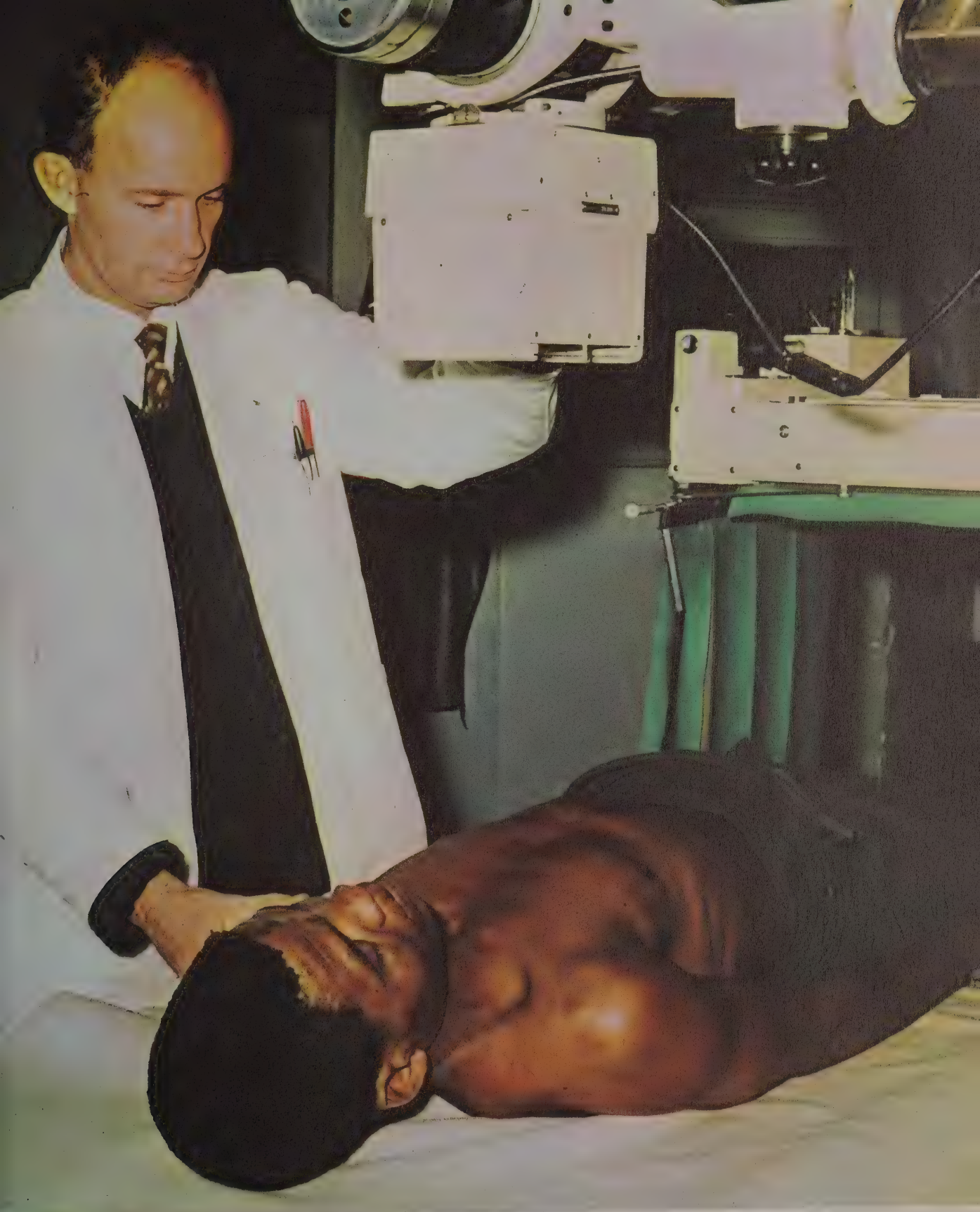
A patient usefully occupied in repairing shoes.

A sister shows some crochet work done by patients. The standard of work is high.

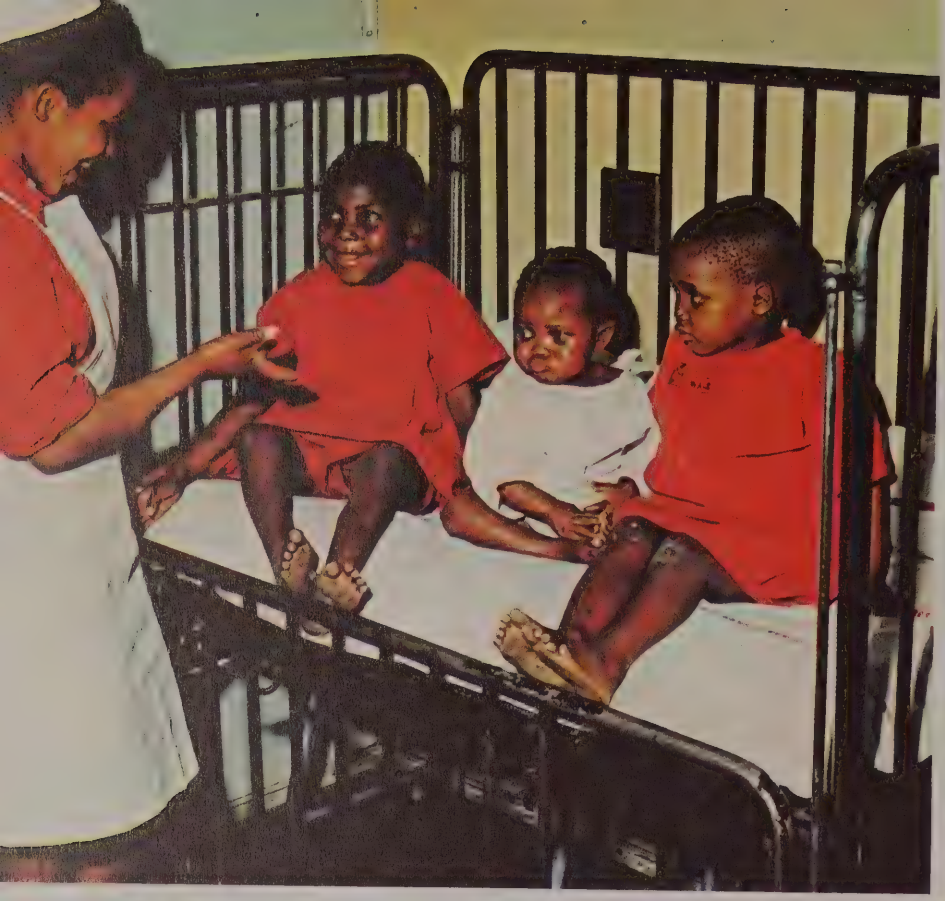
The hospital laundry employs every modern labour-saving device, and handles more than 75,000 individual pieces every month. The kitchens, too, are the last word in modernity. 18 large steam pressure cookers handle the bulk of the cooking, supported by the usual kitchen equipment, including pressure ovens with different compartments, fish grillers, and four anthracite stoves for use in the event of steam heat failure. A fully-qualified White dietician is in charge of all the feeding arrangements.

Every effort is made by the hospital staff to make life as pleasant, as interesting, and as varied as possible for patients whose narrow mental horizons obviously limit their capacity to extract the maximum benefits from life. Thus, there is a large, airy recreation hall, while sportsfields for football and netball are also available in the hospital grounds.

No one will pretend that a psychiatric hospital is the most cheerful place in the world, but a duty is owed to the sick of mind as well as of body, and that duty is not shirked or skimped at Bophelong Hospital.

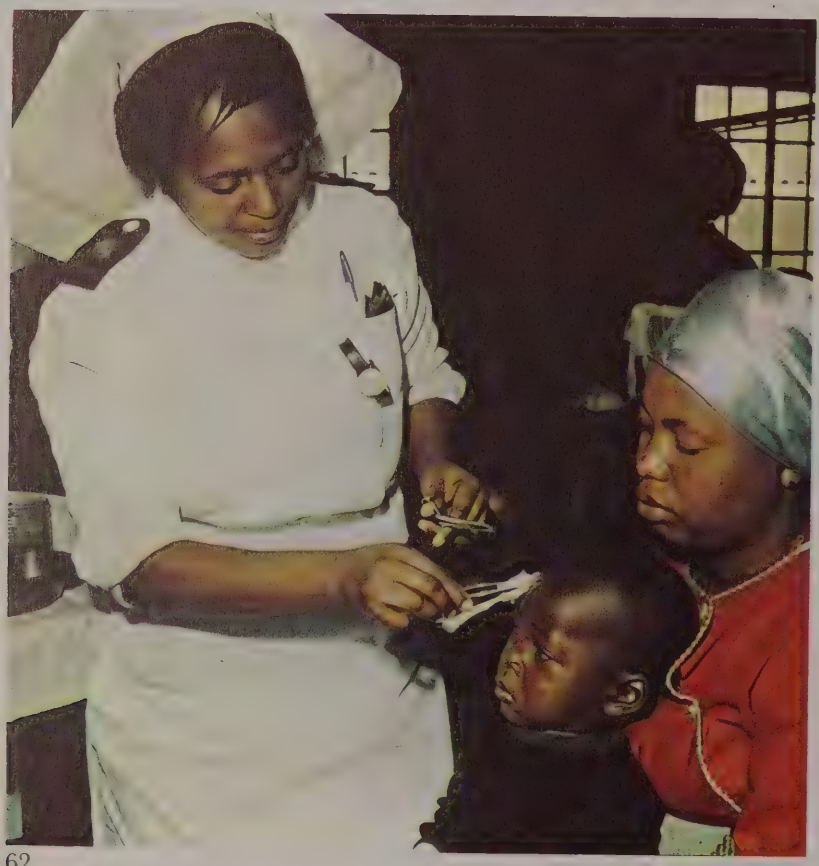


All hospitals serving South Africans of all population groups are equipped with diagnostic technical aids manned by skilled personnel.

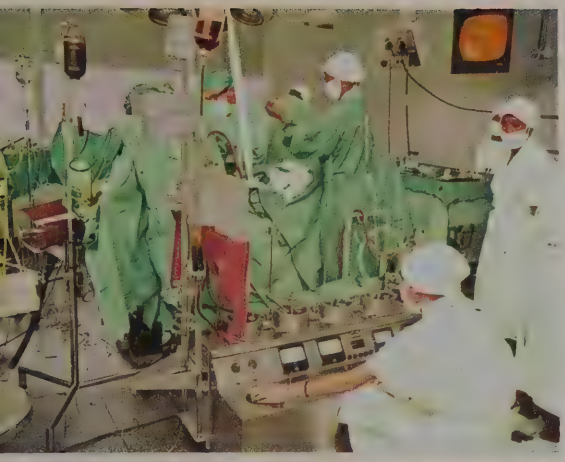


A Bantu nurse helps to instil confidence into three slightly apprehensive charges.

Coloured patients recuperating from eye injury operations make Christmas decorations and motifs as a form of therapy.



A Bantu nursing sister dressing a head wound sustained by a young patient. All South African hospitals offer a full range of out-patient treatment.

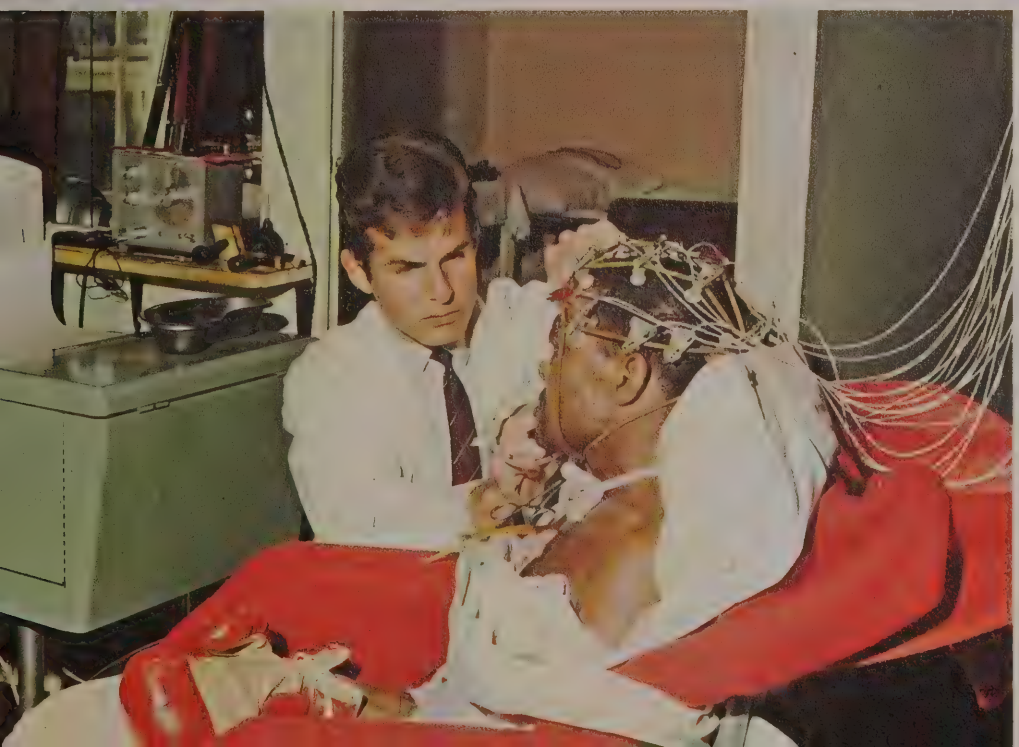


Bantu nursing personnel assisting at a major operation.

Below: Bantu nurses attending a lecture.

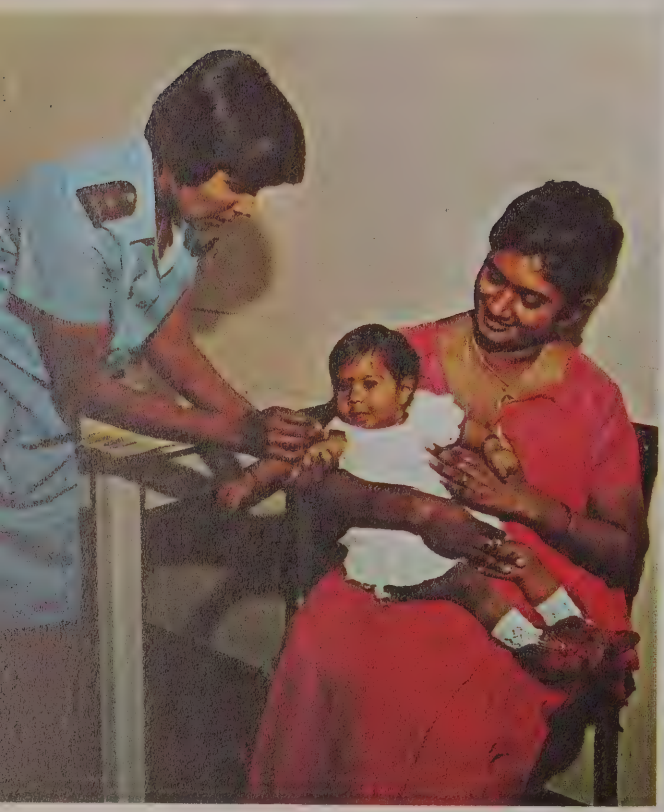
Groote Schuur Hospital, Cape Town, scene of the first human hea transplant, caters to the medical needs of South Africa's vario national groups.

An elderly Bantu patient undergoing radio-active cobalt bomb treatment. Treatment is free of charge.



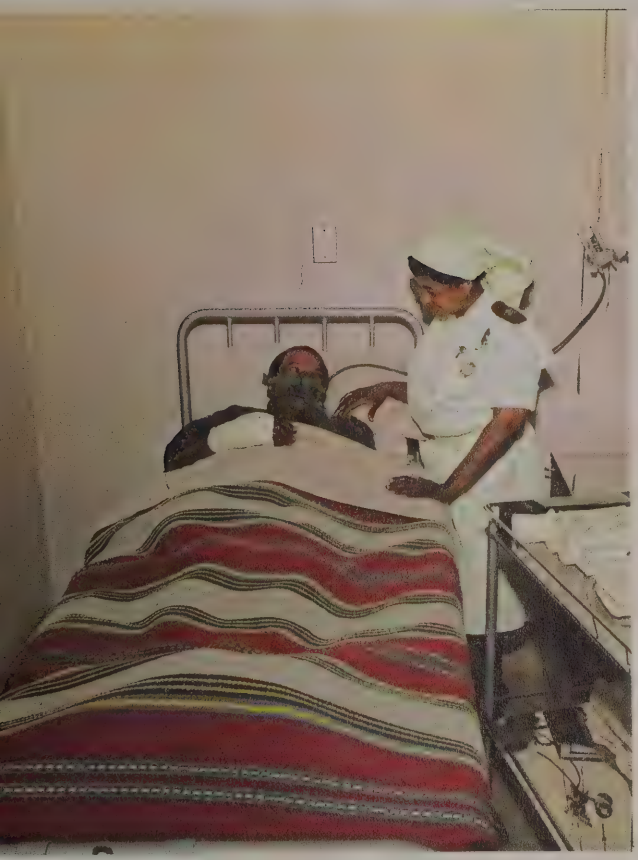
A technician takes an encephalograph of a Coloured patient. This diagnostic procedure records brain tracings.

Bantu laboratory assistants measuring and packing medical supplies.



An Indian mother looks on as her infant is vaccinated by an Indian nursing sister.

Weaving is an aspect of occupational therapy for certain forms of injury. These Bantu patients are recovering from arm and hand injuries.



Staff nurses of Livingstone Hospital, Port Elizabeth.

Piped oxygen is administered to a post-operative patient having difficulty with his breathing — Thusong Hospital, Tswanaland, Western Transvaal.

Livingstone Hospital, Port Elizabeth.

This little Coloured patient is well and truly trussed-up in splints.

Left: The Red Cross War Memorial Children's Hospital, Rondebosch, Cape Town.
Right: A group of convalescent Coloured children in the playroom of the Red Cross Children's Hospital.

THUSONG
HOSPITAL

THUSONG Hospital is the newest and most modern Bantu hospital in South Africa.

In the Tswana tongue, Thusong means "Place of Help". The hospital was established to do just that—to help the sick, the infirm, the cerebral palsied, the chronically ill, the aged, all of whom have a call on Thusong's healing services.

Thusong Hospital was designed to serve the five main blocks of Tswana people whose homeland stretches in a huge arc around the northern Cape Province and the south-western Transvaal. When the hospital was officially opened in October, 1968, the Minister of Bantu Administration and Development and of Bantu Education, Mr M. C. Botha, said: "The erection of Thusong Hospital and other modern and well-equipped hospitals proves that the South African Government is in earnest in its intention to help the Bantu people along the road to independence, and to give them the opportunity of reaching the highest level in their own areas".

Thusong Hospital serves a total population of just over 400,000. It has 1,214 beds, allocated as follows:

General beds	404
Chronic sick & cerebral palsy beds	310
T.B. beds	300
Old age beds	200

All intending patients are transported to the hospital from neighbouring towns and farms free of charge, and are returned home after treatment, also without charge. The normal ambulance service is also available.

In November, 1968, the nursing staff numbered 10 Whites and 189 Non-Whites. The 10 Whites were all trained nursing staff, including two Senior Matrons. The Non-White staff was composed of:

Sisters	8
Staff nurses	25
Pupil auxiliaries (female)	90
Pupil auxiliaries (male)	66

Ninety students are enrolled in the hospital's College of Nursing.

Thusong is a mission hospital administered by the

A part of Thusong Hospital which is situated at Sheilah, near Lichtenburg, in the Western Transvaal.

This group of Bantu nursing sisters at Thusong Hospital is representative of the best type of Bantu womanhood serving their own kind.

Relatives of patients, and some staff members, at the admissions section of the hospital.

In Thusong Hospital's College of Nursing, a lecture to a final Group class is in progress.

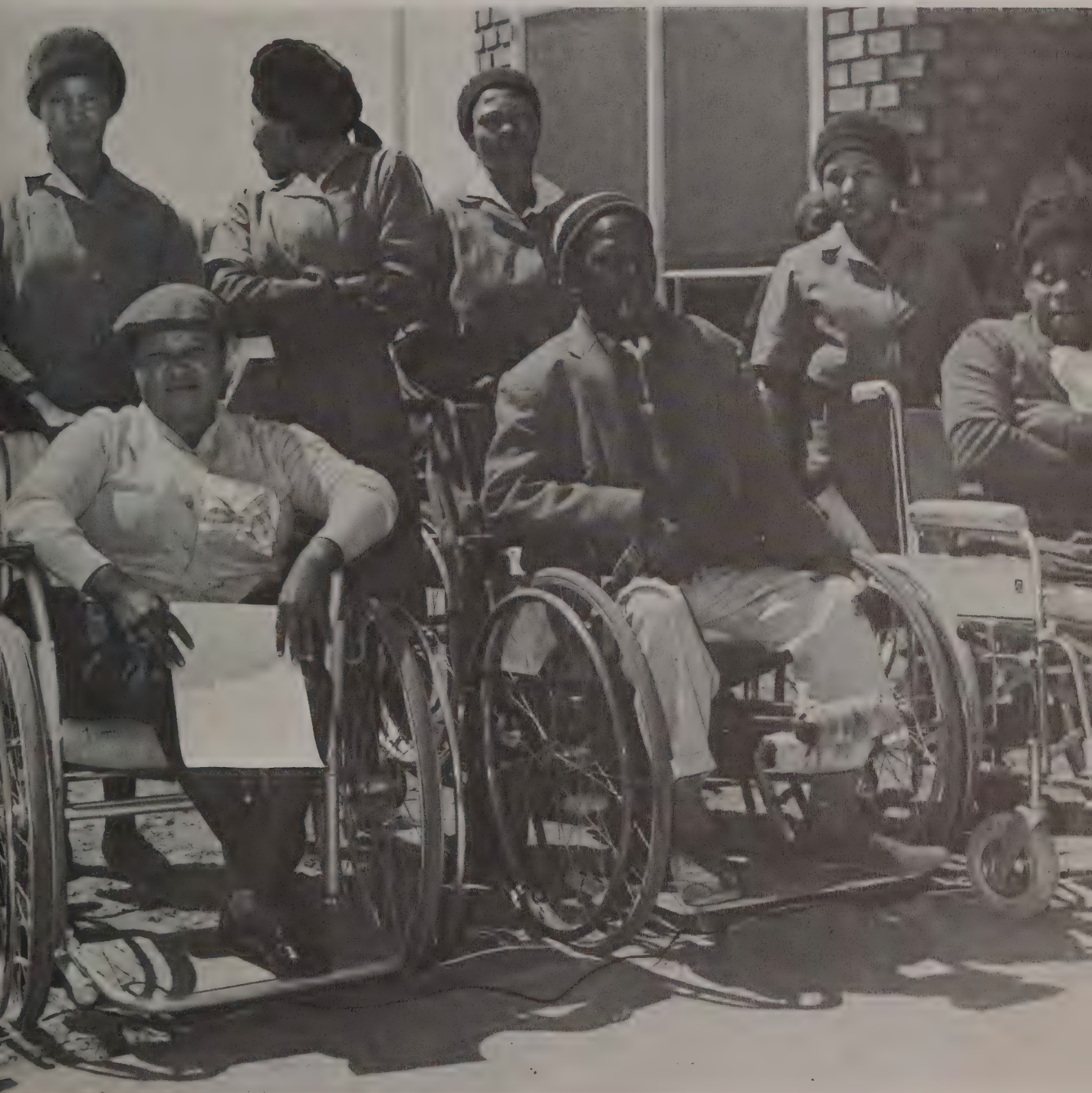
Dutch Reformed Church. The money for its erection and running costs is provided by the Department of Health of the central Government and by the Department of Bantu Administration and Development. Current running costs are about R250,000 a year (this is expected to increase to at least R300,000 within the next three years).

The hospital's four operating theatres are amongst

Chief K. L. M. Molefe of the Tswana national group of Bantu peoples speaking at the official opening of Thusong Hospital.

A Bantu nursing sister demonstrating the human nervous system to two second-year nursing students.

the most modern and superbly-equipped in South Africa. The central sterilisation unit is also a model of its kind. No expense has been spared in the provision of the latest and most sophisticated medical and surgical aids. Tests for tuberculosis and other bacterial diseases are conducted in the hospital's laboratory.



A group of incapacitated patients at the official opening of Thusong Hospital.

GROOTE SCHUUR
HOSPITAL

THE words "Groote Schuur Hospital, Cape Town," and "heart transplant" are almost synonymous today. But for more than 30 years before the world's first human heart transplant operation was performed there, Groote Schuur Hospital was a household word to the people of all national groups in South Africa generally, and in the Cape Peninsula and the Cape Province in particular.

Groote Schuur means "Great Barn". More than 300 years ago, the early Dutch pioneers built a *groote schuur* near the site where the hospital now stands to store the grain, vegetables, fruit, and other food crops supplied to fleets of the Dutch East India Company plying between Holland and the East Indies, and to the ships of other European nations using the sea route between East and West. Groote Schuur was a "life saver" then. It still is today.

One cannot be within the hospital's purlieus for very long before becoming aware of its chief characteristic – warmth and friendliness. The spirit of dedication is palpable. There is no cause for astonishment that a world milestone in cardiac surgery was set up here.

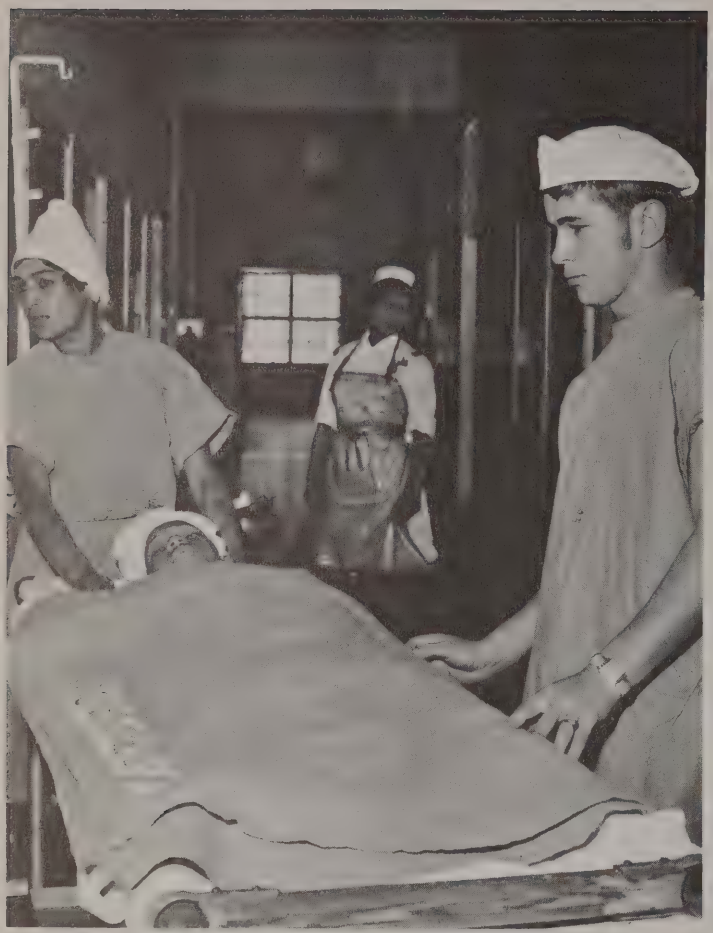
Daily, man's fight against illness, disease, disability, and death is waged at Groote Schuur. If the heart transplant proved one thing, it was that the fight cannot be waged in isolation. Doctors and surgeons cannot perform their highly specialised skills without the assistance of nurses, technicians, paramedical personnel (radiographers, social workers, occupational therapists, physiotherapists and others).

As the result of South African hospital work methods which have excited interest abroad, the advice of Groote Schuur's Medical Superintendent is sought by hospital administrators in Britain, Europe, and the United States.

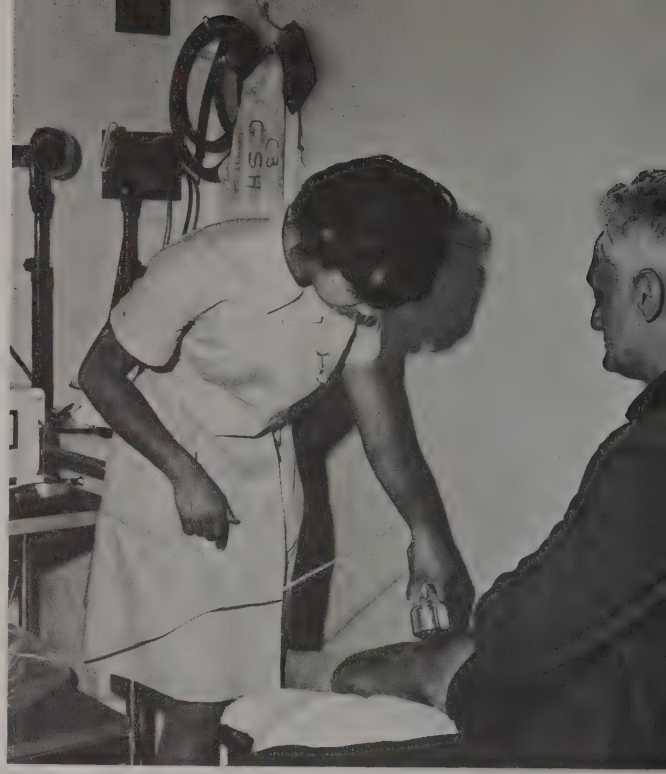
All aspects of hospital administration are the responsibility of the Medical Superintendent, a deputy medical superintendent, and three assistant medical superintendents. The magnitude of the administrative problems attaching to the smooth functioning of Groote Schuur may be gauged from the size of the clerical and administrative staff which consists of more than 200 non-medical officials, clerks, typists, telephonists, storemen, mechanics and others.

Aerial view of Groote Schuur Hospital, Cape Town.

A bowl of proteas (South Africa's national flower emblem) brightens a women's ward.



A patient being returned to a ward after an operation.

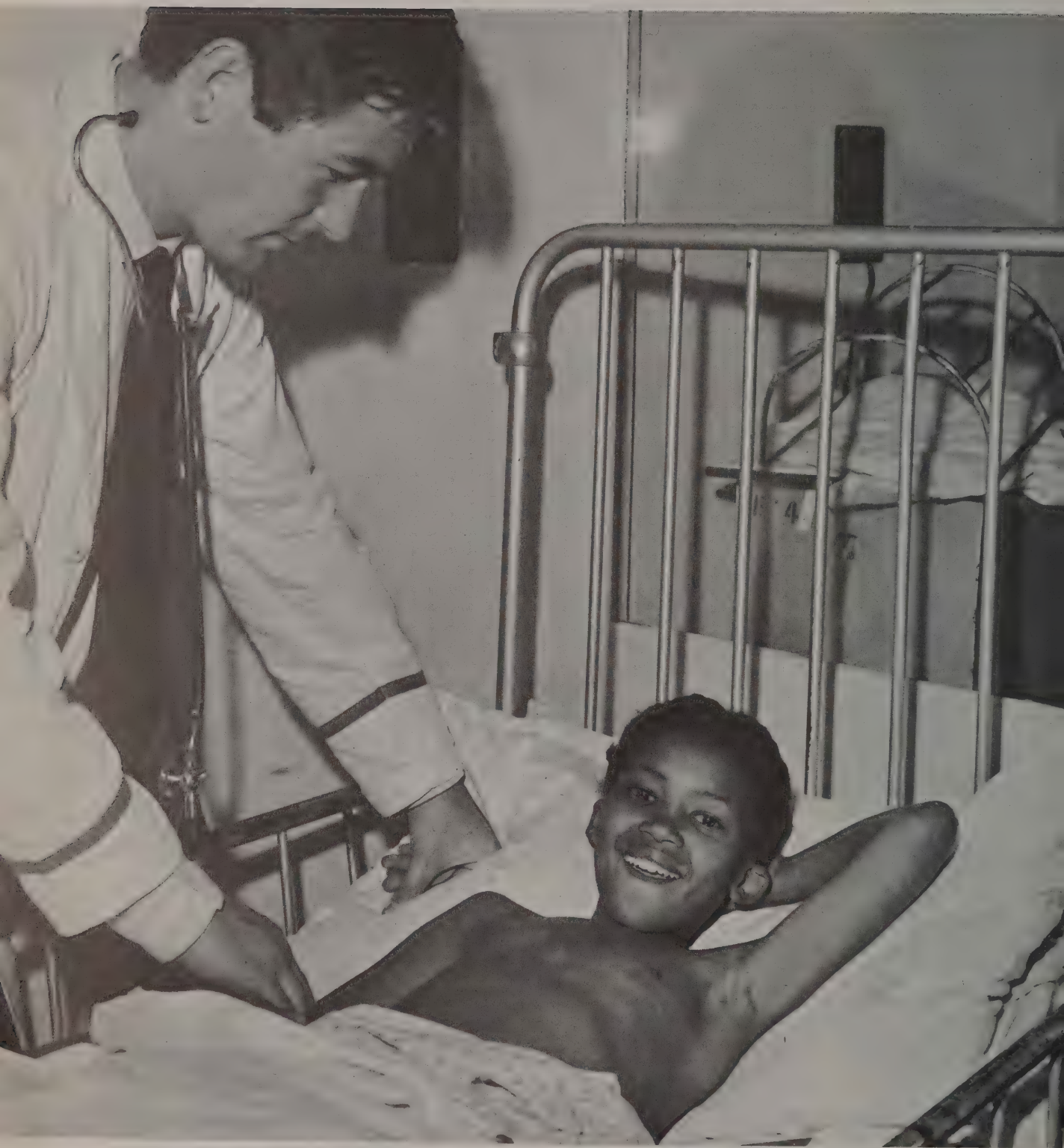


A student physiotherapist giving ultrasonic treatment to a Coloured patient's knee.

The reception and admissions office: patients come from all parts of the Cape Province, South West Africa, and the Republic as a whole.

A Coloured student-nurse recording details of patients under her care.

This Bantu patient from Taung in the north-western Cape Province is receiving plastic reconstruction of the nose. He is seen listening to "Radio Bantu" (every bed is wired for radio reception).



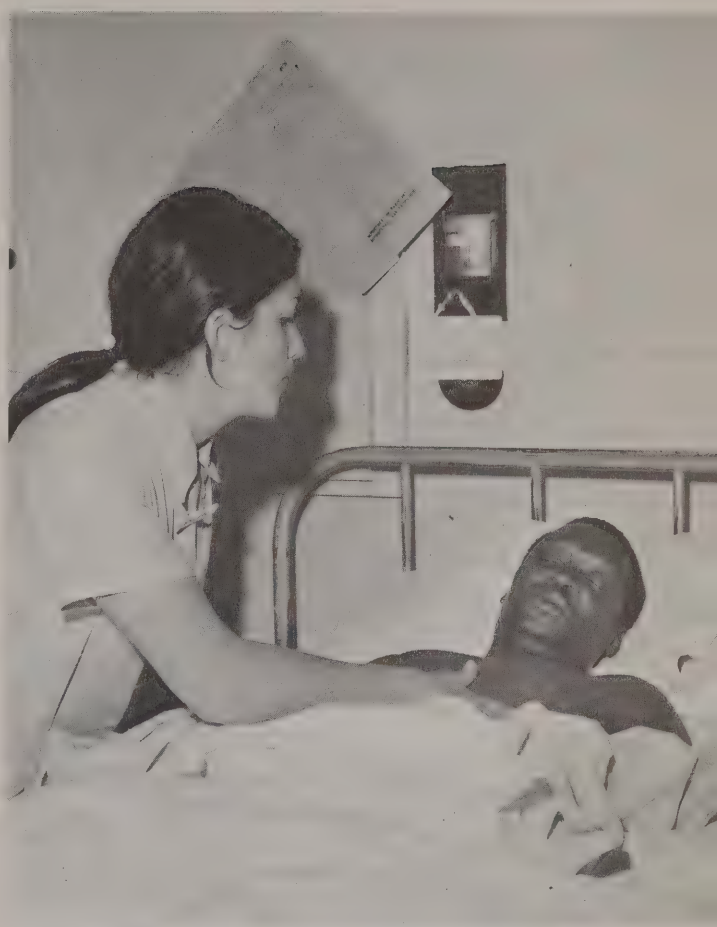
Medical student examining a young Coloured patient.

Groote Schuur has truly been called a "city within a city". More than 5,000 people work in the hospital complex which is, indeed, one of the largest in Africa. Like any town, Groote Schuur has a wide range of amenities, including a bank, post office, hairdressing salon, library – more than a thousand volumes circulate weekly through the wards – mobile "shops" which are wheeled through the wards at appointed times, maintenance workshops, an assembly and recreation hall, etc. Staff facilities include tennis and squash courts, a swimming-pool, a hockey field, and a billiards room.

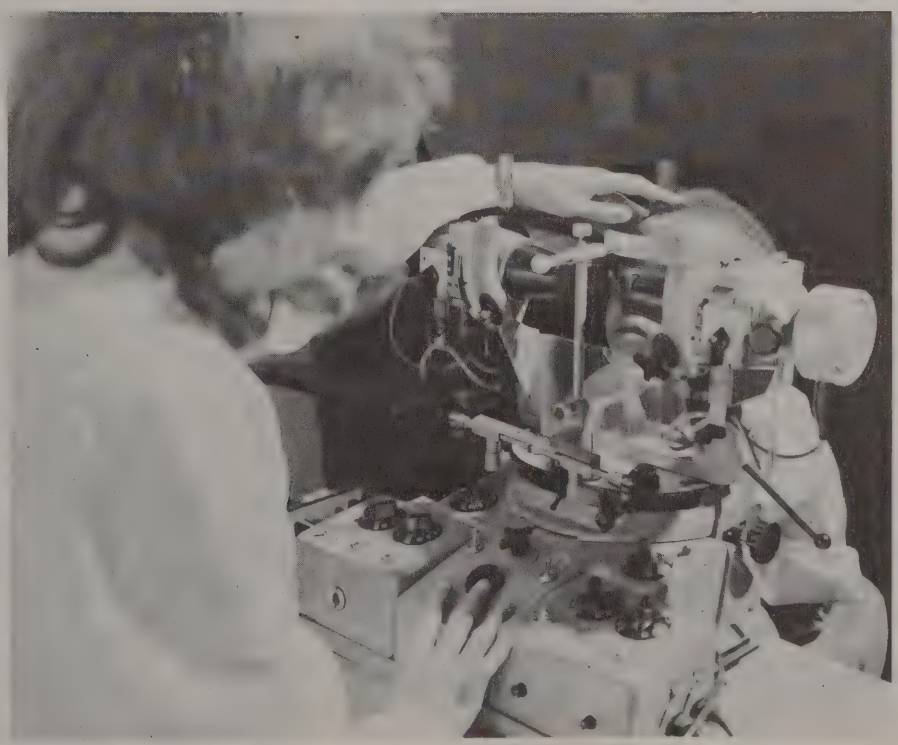
Designed by the well-known South African architect, Sir Herbert Baker, Groote Schuur was built in 1932 at a cost of R350,000. A gabled structure in the Cape Dutch style, the hospital occupies a dominating site high up on the flanks of Devil's Peak, an eye-catching landmark for Cape Town residents and visitors alike. It is a maze of buildings, linked by subterranean tunnels and miles of white-walled passages. Only an habitué can hope to become reasonably familiar with its geography.

A recent addition is the 8-storey out-patients block which took 2½ years to build. Of the most advanced design, it reflects the accumulated knowledge and experience of hospitals in the United Kingdom, the United States of America, and on the Continent of Europe. It also, naturally, incorporates South African experience. In 1967, 595,645 out-patients were treated at this new addition to Groote Schuur Hospital.

Other additions include the Cape Province's second cobalt bomb radiation unit and a new mater-



A student physiotherapist instructing a Bantu patient how to expand his lungs (the patient was due to undergo an operation).



In the orthoptic department, the eyes of a youthful Bantu patient are tested and examinea on the Synoptophore.

nity block. A 9-storey cardiothoracic and organ transplant block is now being planned. Further extensions costing about R2-million are also envisaged, including a new 9-storey accident and resuscitation centre.

Groote Schuur's battle against sickness, ill-health, injury and pain is organised and carried on in five principal divisions of the hospital:

1. **Division of Medicine**
2. **Division of Surgery**
3. **Division of Obstetrics and Gynaecology**
4. **Ancillary Division**
5. **Division of Pathology.**

The divisions are organised into a varying number of departments, each with its own staff, wards, out-patients' clinics, and its own programme of undergraduate and post-graduate student instruction. The departments are linked administratively to the hospital's Medical Superintendent through the heads of divisions.

The Groote Schuur Hospital Group, as it is known, incorporates three other fully fledged hospitals, i.e. the William Slater Hospital, the Psychiatric Day Hospital, and the Peninsula and Mowbray Maternity Hospital.

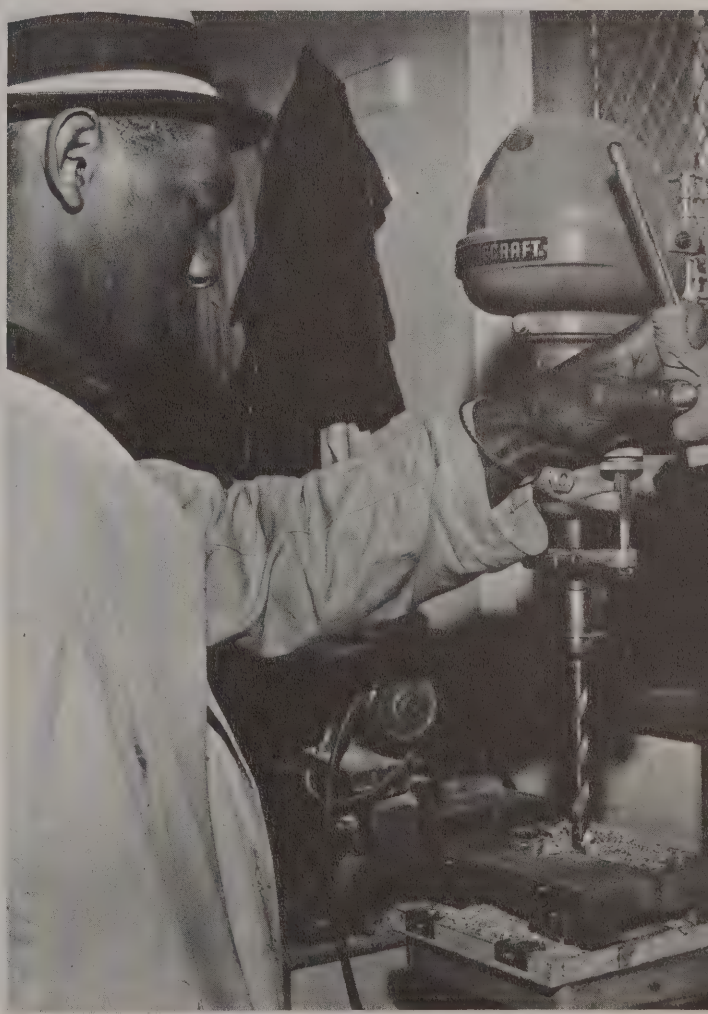
The various clinics of the hospital are, perhaps, the key to the successful diagnosis and treatment of patients who, after being examined, are referred by the clinic

This patient is making a stool seat of twine. The exercise strengthens his arm muscles and facilitates his walking with crutches.

Preparing a patient for treatment by the radio-active cobalt "bomb" unit.

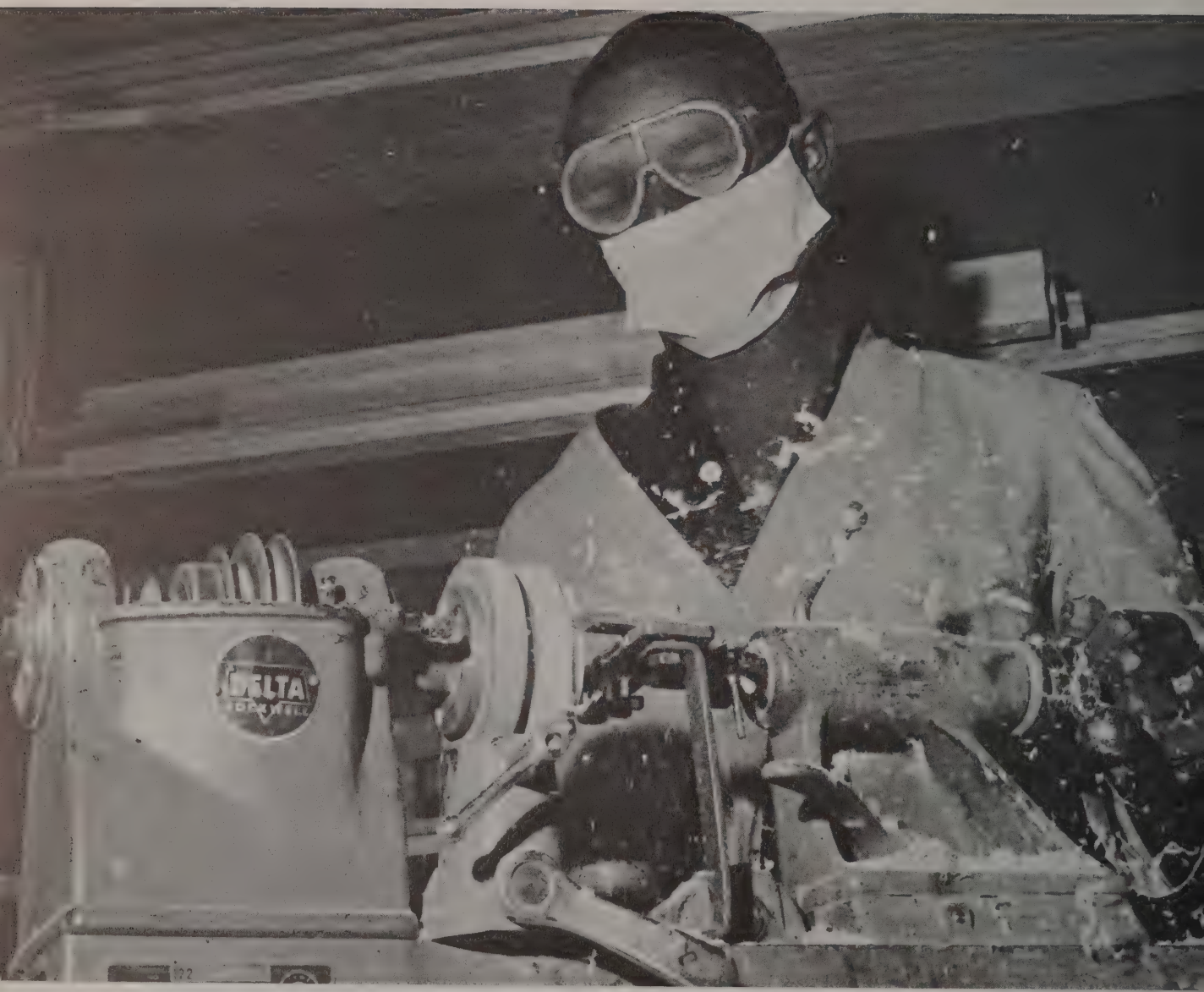
to the appropriate division and department, where the most sophisticated diagnostic procedures are used. The diagnostic-isotope service, and the gastro-intestinal service, for instance, employ special techniques of investigation. The division of medicine has an allergy clinic, a cardiac clinic, a diabetic clinic, a liver clinic, an arthritis clinic, and other similar specialist clinics.

The interest in heart ailments being what it is today, the Cardiac Clinic serves as an excellent example of the useful function performed by the specialist clinics. A heart condition being suspected, a patient is referred by the department of medicine to the Cardiac Clinic. Here the most exhaustive and sophisticated tests are carried out and, if the heart condition warrants it, the patient is then passed on



A one-armed patient (a hemipligia) boring holes in electric light-switch blocks.

atient in the occupational therapy section of the hospital dipping den blocks used in do-it-yourself kits.



This one-armed patient turns out 145 electric light-switch blocks daily. Here, he is seen turning a block.

to the department of cardiothoracic surgery for an operation.

Particularly valuable work among Non-White patients is done in the occupational therapy department. The aim of this department is to return patients, most of whom are disabled in varying degrees, as quickly as possible to as full and normal a life as possible. Work is the principal medium of treatment; and the pictures accompanying this account show some of the diverse forms it takes.

When sufficient skill has been acquired by the patient, he/she is placed in the open labour market under hospital supervision. This is done with the co-operation of the managers of sympathetic private firms in Cape Town and elsewhere in the Western Cape Province, or even farther afield.

As a result, one can confidently place the disabled in suitable work in the outside world or in sheltered employment, or send them for more advanced training at the Industrial Training Centre. Some

A head injury patient in the occupational therapy section drilling centre holes in wooden blocks.

patients are placed for limited periods in various departments of the hospital, to help them gain confidence in their newly-acquired skills and crafts before going out into the world.

Louis Washkansky and Philip Blaiberg, the names of South Africa's first two heart transplant patients, assisted in placing Groote Schuur Hospital on the world medical map. But, on a less exalted plane, it is the ordinary men and women, the doctors and the nurses who throng the passages and wards of Groote Schuur, as they daily go about their appointed tasks of healing, who form a 300-year-old link with the first *sieketrooster* (comforter of the sick) who stepped ashore with Jan van Riebeeck on the beach under Table Mountain on April 6, 1652–first in the long line of South African men and women of healing.

Convalescent hospital cronies (Malays and Coloureds) enjoy a game of draughts.

ERNEST OPPENHEIMER
HOSPITAL

THE Ernest Oppenheimer Hospital for Bantu in Welkom, Orange Free State, is in several respects a unique hospital. No part of its initial cost or current upkeep was, or is, a drain on the State's purse. It was built and is being run by one of South Africa's principal mining groups, the Anglo American Corporation.

This group maintains 27 hospitals in all, with a total staff of over 3,000, to cater for the 175,000 Bantu employees of the mines and industries administered by the group. Of these hospitals, the Ernest Oppenheimer Hospital is the largest.

The development of gold mining in the Orange Free State dates from the late 1940's. At the outset, Anglo American decided to build one large 900-bed central hospital and medical complex at Welkom to serve its five mines in the area.

Architects were sent to examine hospitals in the United States, Sweden, and the United Kingdom, and many of the ideas gathered abroad were incorporated in the plans for the Ernest Oppenheimer Hospital.

A visitor to the hospital is immediately struck by its many modern and practical innovations. The first and strongest impression is one of light and spaciousness. Exceptionally wide and long corridors serve a dual function—they allow ample air and light to reach the inner parts of the building and, should some major mine disaster bring hundreds of patients to the hospital at the same time, the extra-wide corridors could speedily be turned into makeshift wards.

The hospital was built in three stages. The first part was completed in 1952 and opened by the late Sir Ernest Oppenheimer. The hospital was completed in 1957. It has 16 general wards, private wards for more serious cases, women's and children's sections, maternity wards, five operating theatres, and all of the usual facilities.

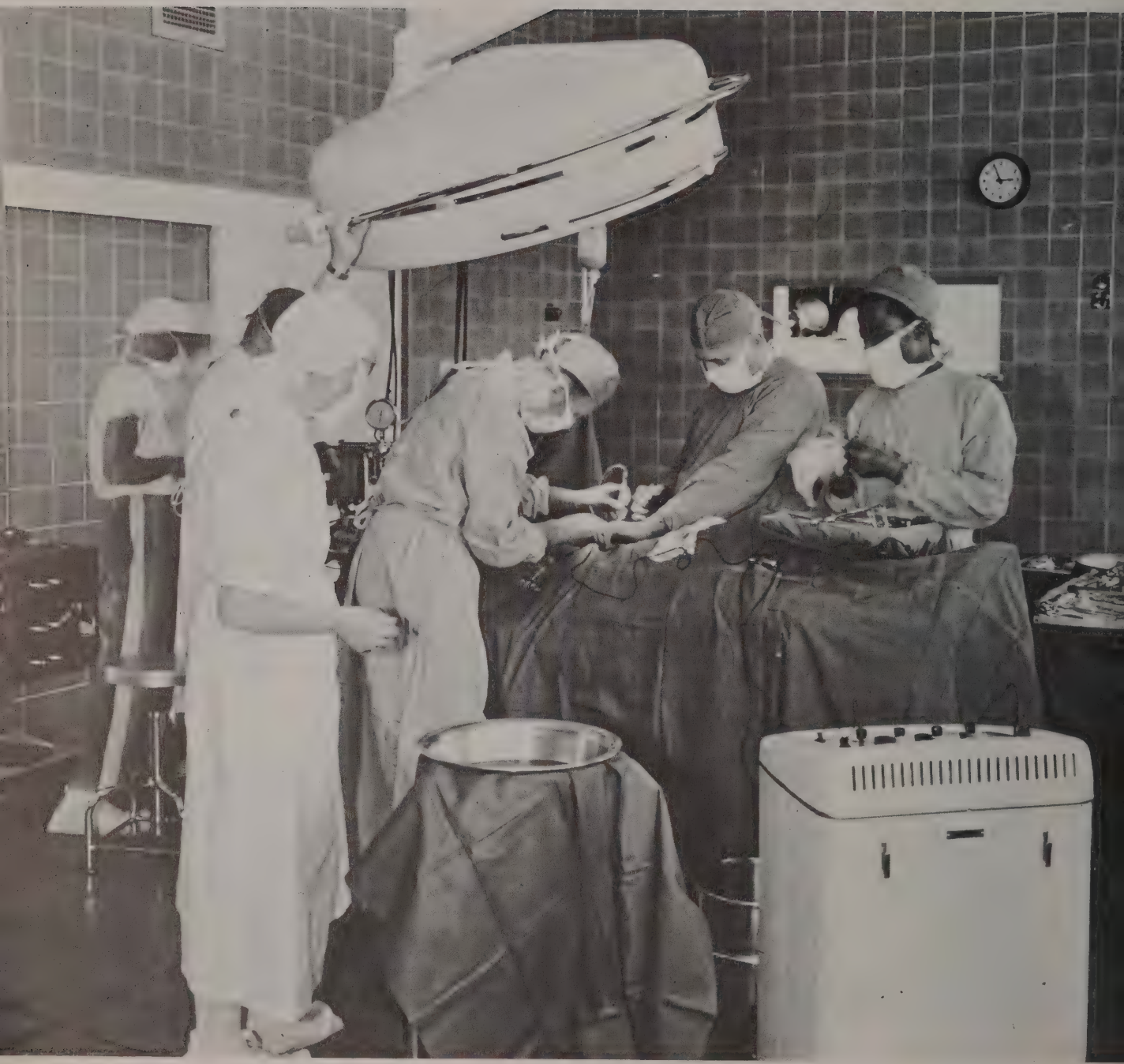
The completion of the hospital achieved two great objectives—provision of the finest possible medical services and equipment, and a service which was economic.

The hospital offers the most modern medical treatment for Bantu workers and their families.

The Ernest Oppenheimer Hospital at Welkom, Orange Free State, is a 4-storey structure in a beautiful setting.

In the case of Bantu who hail from beyond the borders of South Africa, a substantial percentage never enjoyed comprehensive medical services before coming to South Africa.

Many of the miners treated in the hospital come from isolated, often remote, areas of Southern and Central Africa, and have hitherto had little or almost no contact with Western civilisation. Their knowledge of modern hygiene is rudimentary. In many instances the first principles of medicine are foreign to them.



An operation in progress at Ernest Oppenheimer Hospital.

At home the treatment of their sick and injured has followed tribal custom and has often relied on witchcraft.

The Ernest Oppenheimer Hospital is an impressive four-storey building set in a beautiful garden landscape of 58 acres. The four ward wings each contain four 40-bed wards. The wings radiate like fingers, which allows each ward the maximum of sunlight throughout the day, whatever the season. All the wings face north, the most desirable direction in the southern hemisphere.

At the inner end of each block are small private wards where the seriously ill or badly injured are treated. Each of the four blocks of wards is topped by a flat roof where convalescent patients can play sedentary games or simply relax in the open air. According to the authorities at the Ernest Oppenheimer Hospital, most Bantu dislike being patients in small cubicles, or in private or semi-private wards, and much prefer the company of their fellow tribesmen or colleagues, a preference which the design of the wards takes into account.

A gold mine dressing station controlled by the hospital.

A hospital orderly assists a patient to write a letter home to his relatives in the Transkei.

A breakdown of annual hospital admissions shows that most of the Bantu treated have come from beyond the borders of the Republic to work in the Orange Free State gold fields. The table below shows whence they came:

	per cent
Bantu from South Africa	38·1
Tropical Bantu	16·4
East Coast Bantu	12·2
Others from Lesotho, Botswana and Swaziland	33·3

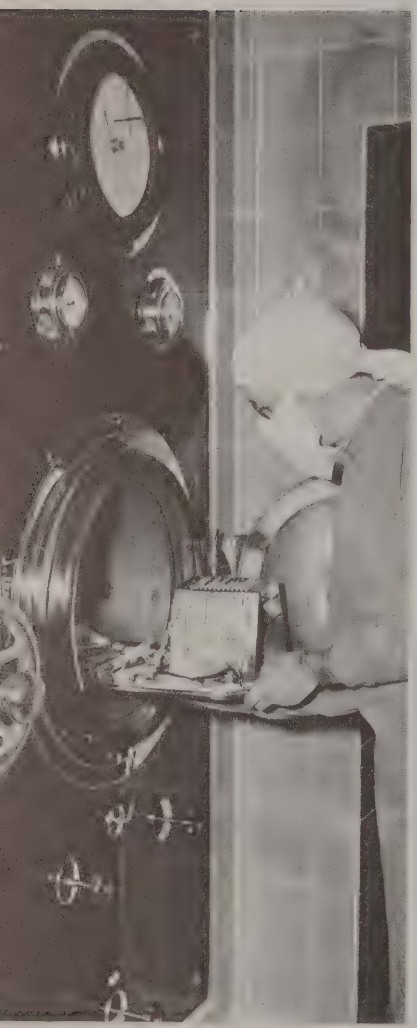
Not unnaturally, many of these migrants suffer acutely from homesickness, especially when they are ill.

The Ernest Oppenheimer Hospital provides for complete treatment which may include X-ray and laboratory investigations, surgical treatment, and eventual rehabilitation to fit the patient for his original work or, if that is not possible, for a useful life outside the mining industry.

Complete treatment necessarily involves comprehensive records offices, out-patients and casualty sections, operating theatres, a radiology department, dispensary, physiotherapy and occupational therapy departments, etc. All these have been incorporated in the hospital plan in a way that ensures smooth efficiency.

aplegic, his legs supported by calipers, learns to walk again by of parallel bars.

From the observation window of his office, a Bantu nursing orderly keeps watch over an entire ward.



A theatre sister removing instruments from an autoclave in the instrument sterilising room.

Training school for State-registered nurses at Ernest Oppenheimer Hospital; this class is studying for the general male nurse's certificate.

Of the 900 beds available, on an average 777 were occupied during 1967, which allows a healthy margin for emergencies. 50 of the beds are set aside for women, children, and maternity cases.

The hospital is administered by a Medical Superintendent assisted by a staff of 19 medical officers, including a full-time specialist surgeon and physician, an industrial physician, a pneumoconiosis medical officer, and two interns.

The part-time visiting specialist staff consists of:

1 physician
1 general surgeon
1 orthopaedic surgeon
1 radiologist
2 ophthalmologists
1 otorhinolaryngologist
1 paediatrician
4 dentists

The full-time paramedical staff consists of:

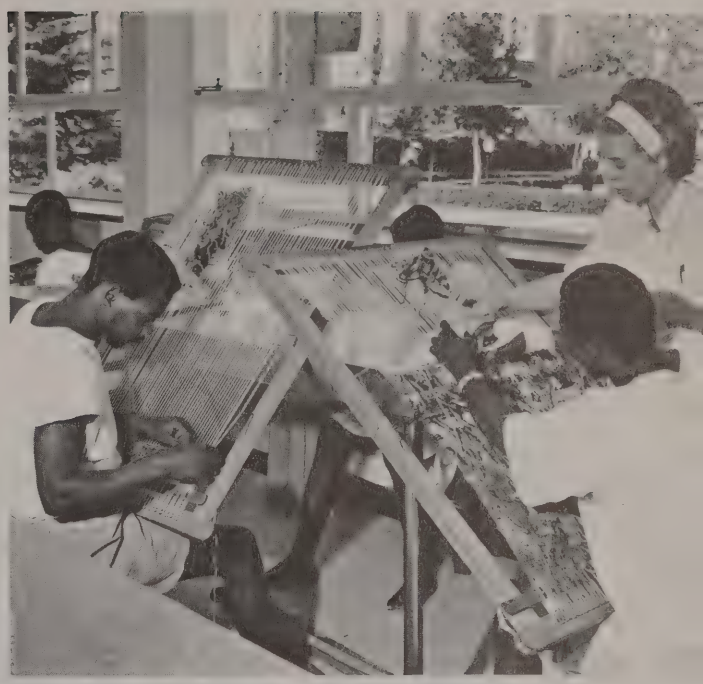
2 pharmacists
5 physiotherapists
2 occupational therapists
5 laboratory technologists
3 radiographers

Light, airy, spotless corridors of the hospital.

In one of the surgical wards, a Bantu male nurse adjusts the support of a patient with a fractured femur in traction.

Nurses rehearsing Christmas carols and songs for the hospital's annual nativity play and concert.

Patients suffering from hand injuries of various sorts, using spring dumb-bells and other devices to maintain mobility and to strengthen weakened muscles.



In the occupational therapy section, patients are taught such skills as weaving which they can put to profitable use on return to their homes.

rts such as wheelchair basketball, supervised by a physiotherapist ft), do much to restore the paraplegic's self-confidence and provide with the necessary physical exercise.

The White nursing staff comprises 20 State-registered female nurses and two State-registered male nurses. There are two Bantu female nurses. In addition, there are 11 female auxiliary nurses and nurse aids. The hospital is recognised as a training school for Bantu nurses, and instruction in nursing was instituted three years ago. The total Bantu hospital staff numbers 445. Most live in hostels in the hospital grounds or at nearby Thabong Township.

Much stress is laid on preventive medicine and preventive procedures.

At a special reception centre in the hospital, all Bantu mine recruits undergo pre-employment clinical, physical, and X-ray examinations. Between 500-600 men are examined daily. The chief aim of these examinations – carried out in terms of the South African Pneumoconiosis Act – is to prevent any worker who may show signs of incipient chest weakness being employed in a dusty occupation.

During his service in the gold mines, every man undergoes periodic clinical, physical and X-ray examinations, so that any form of pneumoconiosis or pulmonary tuberculosis is diagnosed early and treated.

The physiotherapy department is well equipped. Treatments include not only hydro-therapy and mechano-therapy, but different forms of electro-therapy, light-therapy, remedial exercises and massage.

Another most important type of remedial treatment is given in the spacious occupational therapy department. More than 10,000 treatments are given here annually. They may be divided into these groups – remedial games, diversional activities, and rehabilitative training.

The remedial games are scientifically planned to assist the patient's physical recovery, and include table tennis and, for paraplegics, archery, discus

Paraplegic patients enjoying a game of table tennis. Other patients are receiving appropriate treatment and therapy.

A patient using weaving as a means of maintaining mobility in his badly injured left hand. Note the curious but effective finger stalls.

A patient engages in basketry to increase the mobility of his left arm after sustaining a fracture.

Injured arms and legs are strengthened by pulley resistance exercises such as these.

A paraplegic patient being trained in sign-writing.

throwing, and basketball. Diversional activities are basketry, weaving, wood carving, carpentry, woodwork and knitting. The finished articles are either retained by the patients who made them, or are sold on their behalf, any profit going to the patient. This physical work trains, loosens, and strengthens the muscles, a fact of which many patients are oblivious.

Paraplegics are encouraged to remain at the hospital, as it is realised that their lives would be greatly handicapped were they to return to their homes. They are taught to repair shoes, use tools, and do any work within their physical capabilities. They are usefully and gainfully employed in such activities as making wire clips for pneumatic hoses, repairing wire brushes, and assisting in mine dressing stations, lamp rooms, or cobblers' shops.

The pharmaceutical department includes a dispensary, a manufacturing department, a bulk store, a gas bank, an aseptic laboratory and a sterilizing department.

There are the usual out-patients and casualty departments, too, including a dental clinic, operating theatre for minor surgical cases, and a resuscitation ward with respirators and oxygen and suction points.

R. K. KHAN HOSPITAL

for Asians

THE new R5-million R. K. Khan Provincial Hospital at Chatsworth, Durban, Natal, first opened its doors to patients in March, 1969. This ultra-modern hospital will cater initially for the medical needs of the more than 100,000 Indian people in Chatsworth and, as it expands, will draw patients from the Greater Durban area.

For a nominal fee determined by the income of the patient, Indian sick can receive treatment varying from that for a broken arm to major abdominal surgery. The fee includes accommodation, food, specialized medical treatment, nursing services, and medicines.

In view of the hospital having been planned for future growth, facilities will become available progressively. At present only the medical, surgical, and casualty departments are in operation. They will test the patient load on other departments, such as the dispensary, operating theatres, kitchens, and bathrooms, and so assist future planning. As other sections are opened, more and more wards will be brought into use, until eventually all the services required of this general hospital are functioning.

The principal features of the hospital include a magnificently equipped department of physical medicine, a blood bank, an intensive care unit, pathology laboratories, and a number of other ultra-modern features such as a central sterile supply department which eliminates old fashioned sterilizing methods.

The various articles to be sterilized are packed, sealed into packets and placed in large sterilizers. Incorporated in the packets is a chemical which turns black when the required temperature of 275°F is reached; a black line on a sealed packet guarantees that the contents are sterile.

The blood bank is another interesting feature. Accommodated in a fairly large room where technologists are able to carry out various tests, it is a most important part of any hospital and is never closed. Blood obtained by the Natal Blood Transfusion Service from voluntary donors is stored in precisely labelled plastic bags, a system which has only recently been adopted. The bottles previously used for storing blood were easily broken and not so convenient to store.

The hospital has its own dispensary with a fully qualified pharmacist in charge, where medicines are made up, packed, or bottled and distributed to the various sections.

There are nine operating and two casualty theatres, of which five only will be used initially, the remainder being brought into use as the need arises.

The 499 beds available at present will be supplemented by another 315 in approximately three years time, when an additional 7-storey block is completed which will contain maternity, orthopaedic, paediatric, and X-ray departments. Until then, patients who require these facilities will be treated at the hospital, the amount of work undertaken in these different fields being dictated by the needs of the community and by the staff and facilities available.

Accommodation and equipment at the hospital compare favourably with other hospitals in South Africa and abroad. General wards are equipped to deliver oxygen, to provide compressed air for suction and for operating mechanical ventilators and mobile X-ray units, and have a special power plug for electro-cardiography equipment and other specialised apparatus requiring power.

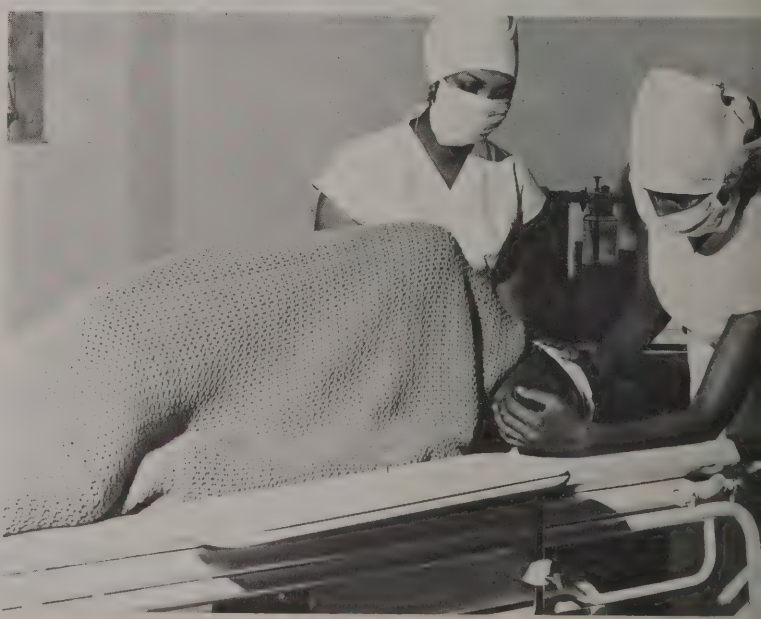
A view of the new hospital for South African Asians.

The X-ray department is equipped with two of the latest developing units. The exposed film is fed into the unit from the dark room next door, and 90 seconds later the developed, fixed and washed film appears at the other end ready for examination.

A sister tutor lectures to a class of first-year students.

An unit in the X-ray department. Here, a film, ready for immediate diagnosis, is being removed by a radiographer.

After an operation a patient is taken to the ward on a special recovery trolley. Here a theatre sister instructs a student nurse in the care of an anaesthetized patient.



It will take some time before the out-patients department is fully established, but in due course the hospital will provide a general and consultant medical and surgical out-patients department which, like the rest of the hospital, will meet all the patient's needs except in certain highly specialised cases.

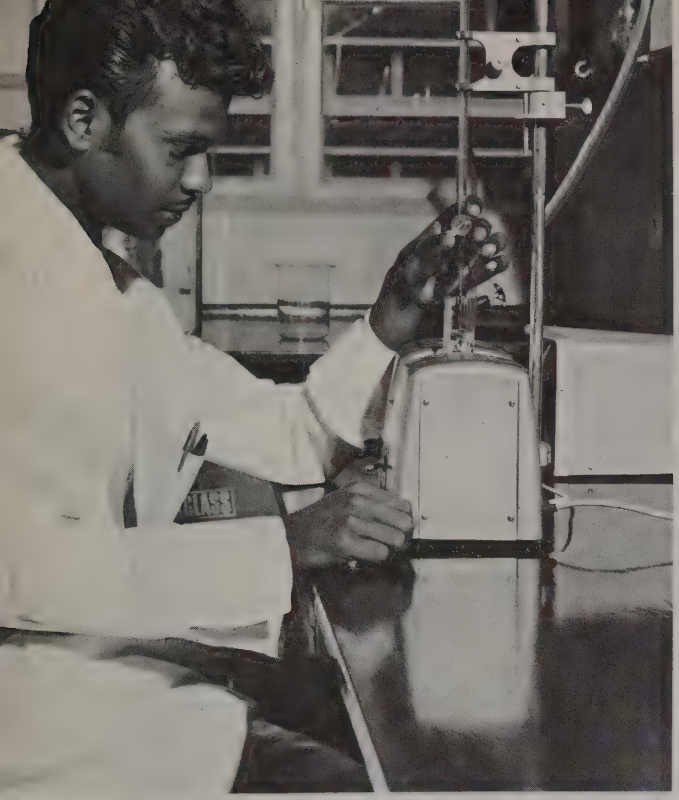
Out-patients are charged a modest fee for each consultation and treatment, but if the patient cannot pay even this, treatment is free.

At present the hospital has a Medical Superintendent, two deputy medical superintendents (Indians), two full-time medical officers, a full-time surgical specialist, part-time doctors and specialists, 25 trained nurses, and 110 students. However, when the hospital is fully operative, it will have a full-time medical staff of 26, a part-time medical staff of eight, seven full-time specialists, seven part-time specialists, and a nursing staff of 377.

The hospital is named after the man who did so much for the medical care of Natal's Indian people. In 1935 Mr R. K. Khan founded the R. K. Khan Hospital and Dispensary Fund, appointing three trustees, Mr W. Doull, Mr S. Rustomjee, and Mr P. R. Pather, of whom Mr Pather is still living.

The Trust contributed R400,000 to the building of the hospital, the remaining funds being made available by the Natal Provincial Administration. The R. K. Khan is the first Provincial Indian hospital in the country, and is wholly subsidised by the Natal Province.

Helping to ensure that the hospital runs smoothly and efficiently is an administrative staff of 72, consisting of 57 Indians and 15 Whites, many of whom worked



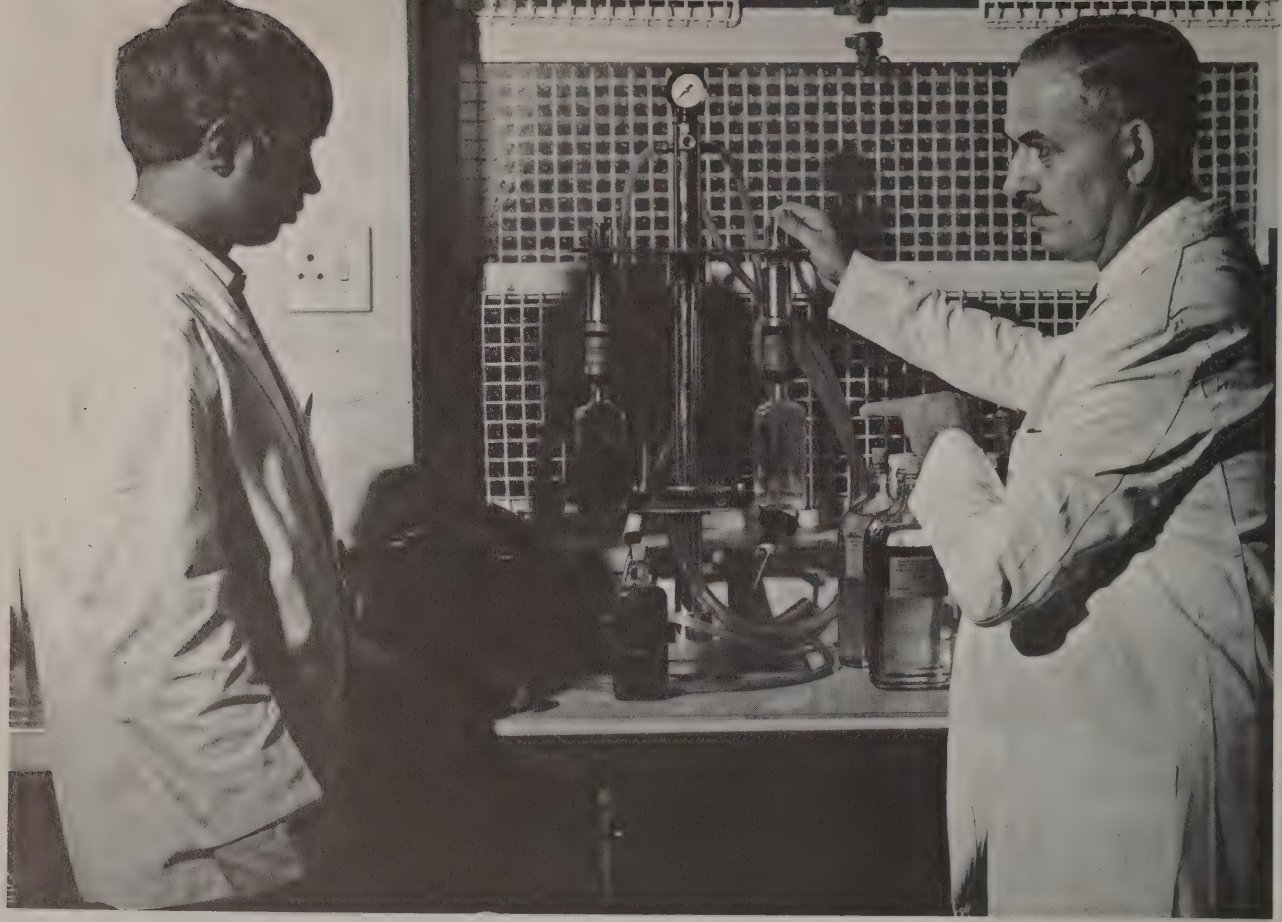
for several months behind the scenes prior to the opening of the hospital. 269 other people work hard to keep the hospital the pride of the community.

The well-equipped kitchen is capable of producing the 15,000 meals a day which will be required when the hospital is full. Careful organisation and much hard work is involved in producing all the food, a task which is complicated by menus which have to take into account the religious food taboos and tastes of different Indian groups.

R. K. Khan Hospital will provide a first-class training course for Indian nurses. On February 24, 1968, twenty-four students began training at Clairwood Hospital in preparation for the opening of the R. K. Khan Hospital, prior to which they received theoretical training at R. K. Khan and practical training at Clairwood which put all its facilities at

A qualified medical technologist titrates a patient's serum for calcium. If a low calcium content is found it is possible that the patient's bones are weakening.

Physical science is an important subject studied by these student nurses.



The principal pharmacist (right) in charge of the dispensary explains to an assistant how the bottle-filling machine works.

their disposal. Eventually, however, nursing students will undergo the complete course of training at R. K. Khan Hospital.

The modern three-storey Nurses' Training College is connected to the nurses residence.

Wards, duty rooms, bathrooms, and storage rooms are included in the huge complex which makes up the training college. Each floor has been designed as a completely self-contained hospital unit, and can be used as such in time of emergency. The modern demonstration kitchen is also complete in every detail, and could cater efficiently for any such emergency.

Lecture rooms, projection rooms, and two large reference libraries will make training easier and more interesting for the students.

The principal tutor and five tutor sisters have their own offices in the building. They are responsible for the students' welfare. At present, all six posts are held by Whites, but they will be replaced as soon as qualified Indians become available.

Student nurses undergo 4½ years of training before they qualify as State registered nurses—3½ years of general training, during which time the student works through every section of the hospital, followed by a 12-month midwifery course.

The Nursing Council recommends that student nurses possess a matriculation certificate but, since many Indian girls leave school before reaching this stage, the hospital may choose girls with lower qualifications if they have matriculation potential.

However, more is required than a minimum standard of education. The aspirant nurse must be healthy and strong enough to stand up to the rigorous training ahead, and must be the right type to deal successfully with patients, and fit in with the work of the hospital.

The syllabus followed and the standards of qualification laid down by the South African Nursing Council are the same for all race groups.

The students take various examinations, both written and practical, at prescribed stages throughout their training. A major practical examination comes half-way through their third year, and this they must pass before proceeding to the final written examination

at the end of the general training. The newly-qualified nurse then enters the hospital as a staff nurse, working her way through the various sections of the hospital until, in time, her experience and personal achievement qualify her for the post of ward sister or matron.
The trained nurse has ample opportunity to continue her studies by attending courses in teaching, administration, public health, etc., choosing the subjects which interest her most.

R. K. Khan Hospital will accept 90 student nurses each year, in three groups of 30 each, one group every four months. It is hoped that sufficient Indian girls will look to nursing as a profession to which they can dedicate themselves in the service of their own community, for Indians are the best people to nurse Indians. They understand their own people, and can work in sympathy with them.

Adjoining the hospital is the 7-storey Nurses' Residence. It provides accommodation for 366 persons, and will be occupied by student nurses, midwives, floor matrons, and other trained staff.

The building, each floor of which is of similar design, contains the students' rooms, the lady warden's flat, four ablution blocks, laundry facilities, and is equipped with telephones.

The students' rooms (61 to a floor) are the pride of any young girl's heart. They have been specifically designed to ensure that they need never be shared, for it is important that young women should have time to themselves, a place for uninterrupted study, and a room in which to express their individual character and taste. Each room contains a bed, chair, desk, built-in cupboard, wash-basin, and a connection to a modern two-way inter-communication system which links each of the rooms to a main control panel in the reception room on the ground floor. General announcements can be made through loud-speakers in the corridors, dining-room, and lounge.

Communications in the hospital itself are extremely efficient. Besides the patient-to-nurse call system, there is a doctors' call system which ensures that any doctor on the premises can be contacted immediately on a low-volume loud-speaker — all of which makes for greatly accelerated and highly efficient working conditions.

Other interesting features are a system of centrally-controlled electric clocks, and a large incinerator connected to each floor by means of a central chute into which waste may be thrown. Corridor lights, too, are centrally controlled. When they are switched off, night lights immediately come on. All these conveniences help to make off-duty periods relaxed and pleasant.

In keeping with the overall use of labour and time-saving devices, is the self-service kitchen. It is complete in every respect, and has no fewer than three cold-storage rooms, a specially partitioned caterer's office, steam ovens, pots, and dish-washing machines.

All who work at the R. K. Khan Provincial Hospital, and the Durban Indian community in general, have a right to be proud of this magnificent hospital and nursing school which will undoubtedly play an important part in ensuring that the medical facilities the Indian community enjoys are second to none.

Student nurses queue for lunch in the nurses' residence.

OVAMBOLAND

Oshakati Hospital

NORTH of the ephemeral lake which is the Etosha Pan—one of Africa's largest wild-life sanctuaries—lies Ovamboland, national homeland of the 240,000-strong Ovambo people who form by far the largest group in South West Africa (45·5 per cent of the total population).

Ovamboland is as flat as the proverbial pancake, the highest point in the country being a 100 ft.-high water-tower at Oshakati! Moreover, there is no such thing as a stone there, and an Ovambo, returning home after a spell of work elsewhere in South West Africa is quite likely to bring an ordinary pebble with him to show to his wife and children.

When the rain comes down from the Angolan highlands across the Kunene River, which forms Ovamboland's northern border, an enormous volume of water floods southwards across Ovamboland's sandy plain through a maze of natural channels called *oshanas*. During a heavy rainy season, these shallow watercourses and the *omurambas* (reservoirs) are filled with water.

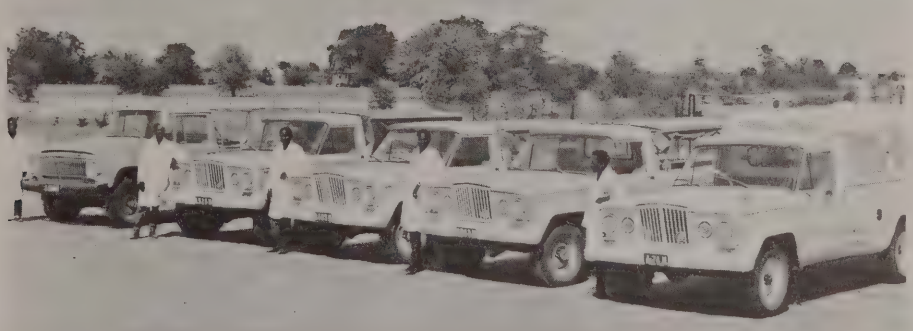
The excess of water brings ill as well as good in its train; the anopheles mosquito breeds ubiquitously despite extensive control measures, and malaria, gastro-enteritis, and diarrhoeal troubles beset the population—all of which means that the Ovambo, too, have come to lean heavily on the comprehensive medical services provided by the South West Africa Administration.

Following a recommendation embodied in the 1964 Report of the Commission of Enquiry into South West Africa Affairs 1962-1963 (the "Odendaal Commission", as it has come to be called), it was decided to erect a 475-bed State hospital to provide the full range of modern medical services so necessary for the people of Ovamboland.

To a large extent, the new hospital was to replace the fine, but understandably inadequate, facilities provided for more than half-a-century by dedicated Lutheran, Roman Catholic, and other missions which had laboured in the territory since the late nineteenth century.

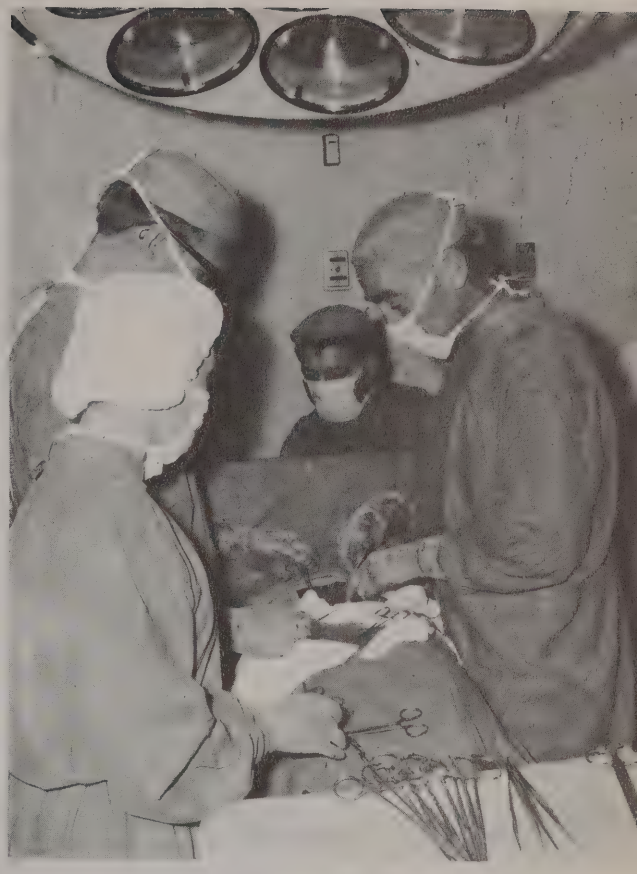
Today, Oshakati boasts a R2-million hospital, visible evidence of triumph over the enormous difficulties which attended its planning and construction.

All wards are linked by covered passageways open at the sides for coolness in the hot Ovamboland climate.



Part of the hospital's fleet of modern ambulances driven by trained Ovambos.

Aerial view of the Oshakati State Hospital in Ovamboland, built at a cost of R2-million.



An operation in progress at Oshakati State Hospital.

Immanuel Joseph (centre) has returned to Oshakati from Groote Schuur Hospital, Cape Town, where he underwent an open-heart operation. Now in perfect health again, he is ready to return to the Iipapakaiu region of Ovamboland where he lives.

A nursing aid administering an injection to an apprehensive patient (note the tribal cicatrices cut into the patient's cheeks).

A group of Ovambo trainee nurses at Oshakati Hospital; their training is supervised by qualified Bantu nursing sisters from the Republic of South Africa.

The building of a major hospital anywhere is a task of the first order, and constitutes a considerable feat of planning and logistics. But when the site is more than 100 miles from the nearest railhead, in a region entirely stoneless, and where the soil has the consistency of sea-sand, then the achievement can justly be judged remarkable.

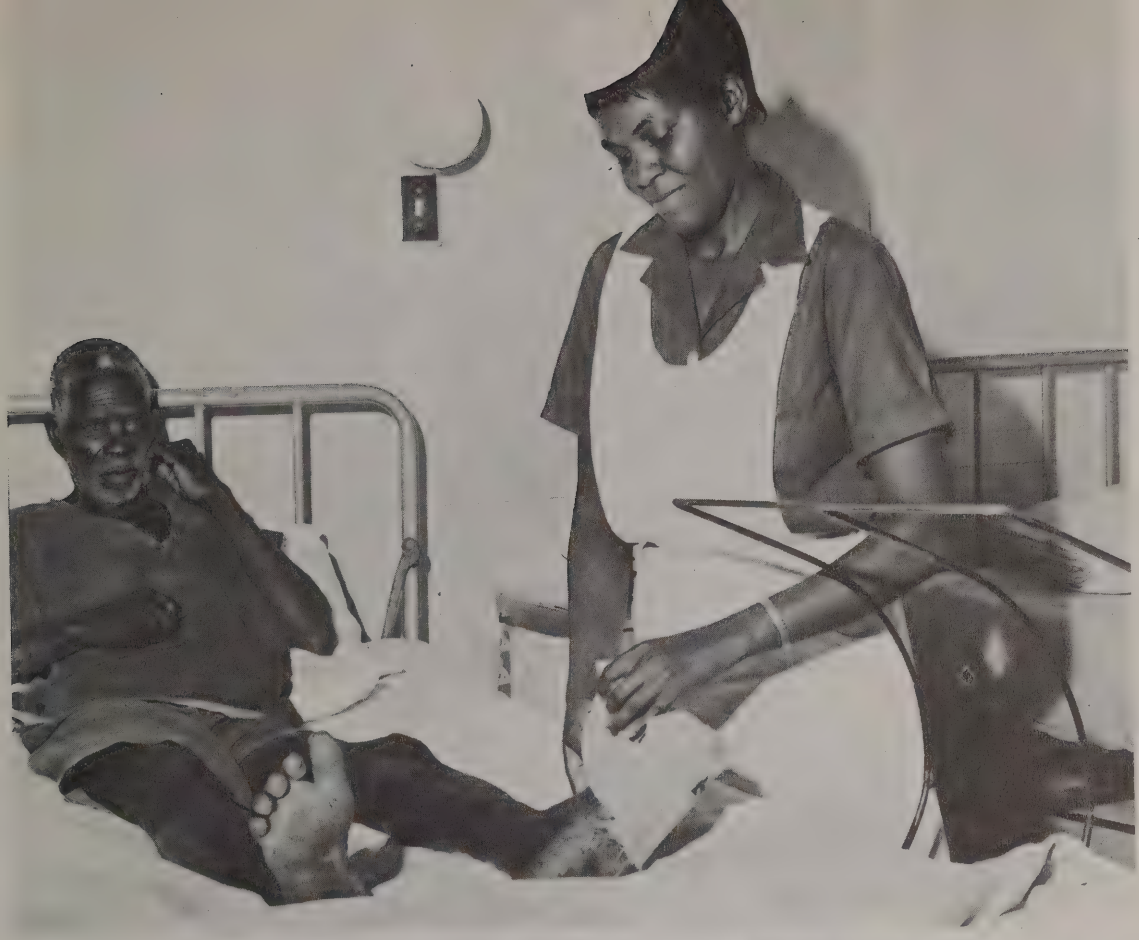
Granted that today there is plenty of building stone in Ovamboland, but it has all had to be carried there, initially by rail to Tsumeb, and thence by road to stockpiles at Ondangua and Oshakati.

Costing showed that it would be uneconomic to transport building sand and gravel, and that it would be cheaper to build the hospital, houses, hostels and other ancillary structures from materials other than conventional brick or concrete. It was, therefore, decided to use prefabricated metal and wood.

All the buildings, in separate transportable sections, were manufactured in South Africa to architects' drawings, and railed from the Witwatersrand to the railhead at Tsumeb, a distance of more than 1,600 miles. From Tsumeb, huge trucks carried them to Oshakati.

Naturally, any extensive medical complex requires houses and hostels for the medical staff, trainees, technicians, and other employees necessary to ensure

A South African physiotherapist helps restore mobility to the wasted limb of a young Ovambo patient.



A student nurse dresses a patient's foot.

Nursing aid binding a patient's finger.

In the hospital's physiotherapy department, two Ovambo youths enjoy remedial exercise on a stationary bicycle specially designed to strengthen emaciated limbs.

A 24-hour radio service keeps the hospital in contact with regional hospitals and outlying clinics.

A convalescent patient enjoys a moment of leisure in her hospital ward. The trained Ovambo nurse exemplifies the highest ideals of service to her people.

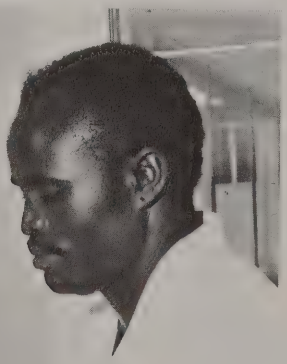
An Ovambo laboratory technician examining TB specimens under a microscope.

the smooth running of such a vast undertaking as a 500-bed hospital covering all aspects of modern medical science and post-operative treatment. So houses and hostels were built first; and then followed the hospital.

Various important considerations governed the choice of site, the main factor being the necessity of a strong all-year-round water supply adequate to the hospital's large population of staff and patients throughout the long, dry period of the year.

The hospital stands in the centre of the most densely-populated area of Ovamboland, above the flood-water level. A road connects it with the airstrip at Ondangua, 25 miles to the east, so that the conveyance of selected patients by air, or by road, to Windhoek presents no insuperable problems.

A group of prominent Namas pays a visit to the Medical Research Division of Oshakati State Hospital.



An Ovambo technician examining sputum. Ovambos are noted for their carefulness in this exacting task, and for their ability to concentrate. Eventually, the bulk of local technicians in the fields of radiography, physiotherapy, and pharmacy will be Ovambo.

A technologist conducts a colorimetric determination.

Oshakati State Hospital was opened during 1966. Its equipment is thoroughly modern. It has four air-conditioned operating theatres, central sterilizing methods, departments for radiography and physical medicine, an ambulance service, and a modern laundry.

Treatment is provided for medical, surgical, obstetrical, gynaecological, orthopaedic, TB, eye, ear, nose, throat, and urological cases. There is also a special children's ward.

The establishment consists of a Medical Superintendent, State medical officers, pharmacists, nursing staff, physiotherapists, occupational therapists, radiographers, State health inspectors, and administrative and general maintenance staff. There are 11 White doctors, a matron with 15 White and three Non-White sisters, a chemist, 47 apprentice nurses, and about 100 other workers.

Specialists are flown in from Windhoek twice a month for special operations, or to help diagnose problem cases. In addition, a vehicle leaves from Oshakati for Windhoek every Tuesday with patients who need advanced medical treatment. An orthopaedic technician flies in periodically from Kimberley to take measurements for artificial legs, shoes, etc. A 24-hour radio service is available for the whole of Ovamboland and the Kaokoveld.

The South African Institute for Medical Research, through its branch laboratory at the hospital, manages the pathological services.

State medical officers take turns at visiting the surrounding mission hospitals, and assist them with operations or immunisation campaigns. They also assist with the examination of Ovambo contract workers in the modern clinic at Ondangua, which has a miniature mass-X-ray unit and pathological laboratory facilities.

Another important duty of the hospital is the training of qualified nurses. Oshakati is the only training school for this purpose in the northern South West Africa homelands and Ovambo girls are encouraged to take up training. Facilities exist for 110 of them.

Thirty-five of the existing houses at Oshakati are occupied by hospital personnel; 10 are available for the future. A modern physiotherapy, occupational therapy, and malaria research block will be built during 1969, and extensions costing R600,000 are in hand. These include additional nurses' living quarters. All these additions will be completed by 1970.

Two-thirds of all cases treated at Oshakati are referred to the hospital from other parts of Ovamboland, and a high percentage of patients comes from Angola across the border.

Immunisation campaigns carried out at regular intervals by the hospital include preventative measures against TB, diphtheria, smallpox, polio, tetanus, and whooping cough.

Ovambo trainees in the hospital's laundry.

MEDICAL SCHOOL

Durban

MEDICAL students from the various Bantu nations and the Coloured and Asian population groups are trained at the Faculty of Medicine of the University of Natal, Durban. The total enrolment in 1968 was 374, comprising 209 Indians, 134 Bantu, and 31 Coloureds.

Durban was chosen as the site of South Africa's Non-White medical school because the circumstances and facilities there were considered ideal. There is a considerable concentration of the Asian and Bantu population in and around Durban, as well as a number of hospitals for clinical study.

The medical faculty was built next-door to King Edward VIII Hospital. Apart from this general hospital, there is the King George V Tuberculosis Hospital, the Coloured section of Addington Hospital, McCord Zulu Hospital, and specialist mental and leper hospitals not far from Durban.

The Alan Taylor Hall of Residence for men and women is at Wentworth, some eight miles from the centre of Durban, and about six miles from the Medical Faculty Building.

The Medical School took in its first students in 1951, and awarded its first degrees in 1957, since when 265 students have graduated: 119 Bantu, 130 Indians, and 16 Coloureds. A number of Bantu students from outside South Africa have also been enrolled, most of them from Rhodesia, Zambia, and Lesotho.

The School, which complies with the requirements laid down by the South African Medical and Dental Council, was established largely as the result of the tireless efforts, over many years, of leading Durban citizens and of the Natal branch of the South African Medical Association acting in co-operation with the Natal Provincial Administration. The central Government undertook to bear the cost of the building and the running expenses. The University of Natal provided the laboratories for pre-medical science and the hostel accommodation.

Advantage is taken of the special facilities available in Durban for training students in social medicine. This involves no radical departure from the long-established traditions of medical education, but is achieved mainly by increasing the length of the course from the usual six years to seven, followed by the normal one year's internship.

To encourage impecunious students to train as doctors, the Government offers 15 bursary loans of R2,600 each, sufficient for almost half the annual intake of medical students in Durban, while a further 17 bursaries and scholarships are available annually from other sources. Students may also apply to the university itself for loans.

The following degrees are conferred:

Bachelor of Medicine and Bachelor of Surgery	**M.B., Ch.B.**
Master of Medicine	**M. Med.**
Doctor of Medicine	**M.D.**
Bachelor of Medical Science	**B.Sc. (Med. Sci.)**

The Medical School; here, Bantu, Indian, and Coloured medical students train for their degrees.

Bantu students at work in one of the school's three laboratories.

Issued by the Department of Information, Private Bag 152, Pretoria.
Printed in the Republic of South Africa for the Government Printer, Pretoria,
by Swan Press Limited, Johannesburg. First published in 1969.